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Canadian Gender Trends in Education and Work

T-00-4E

by
Victor Thiessen and Christy Nickerson

December 1999

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Abstract

This paper notes that gender differences in numeracy are substantially smaller than such differences in literacy. Girls score substantially higher than boys in language skills and this gender difference is already pronounced by the age of 13. Boys and girls do not differ in mathematics achievement at the age of 13. However a gender gap in favour of males, particularly in problem-solving skills, seems to emerge by the time students are in their last year of secondary schooling. Nevertheless, girls are increasingly pulling ahead of boys academically in *all* subject areas. Part of this may be because the school environment is one that girls experience more positively than boys do. Both the sentiment to school that boys exhibit and their lower academic performance predict the higher school-leaving behaviour of boys. The authors discuss implications of these findings for total schooling and for the gender segregation of the labour market in the year 2000.

Résumé

Les différences entre les sexes en ce qui a trait à la capacité de calculer sont beaucoup moins importantes que les différences en litéracie. Les filles obtiennent des résultats sensiblement plus élevés que les garçons au chapitre des aptitudes langagières et, à l'âge de 13 ans, cette différence entre les deux sexes est déjà marquée. Il n'y a pas de différence dans le rendement des garçons et des filles en mathématique à l'âge de 13 ans. Toutefois, durant la dernière année du secondaire, une différence à l'avantage des garçons voit le jour, particulièrement en ce qui a trait à l'aptitude à résoudre des problèmes. Il n'en reste pas moins que les filles devancent de plus en plus les garçons sur le plan académique dans *tous* les domaines. Ce phénomène s'explique en partie du fait que l'expérience des filles en milieu scolaire est plus positive que celle des garçons. À la fois le sentiment exprimé par les garçons envers l'école et leur rendement académique inférieur prédisent un plus grand nombre d'abandons scolaires chez les garçons. Les auteurs de l'étude discutent des répercussions de ces résultats sur la durée totale des études et sur la ségrégation du marché du travail selon les sexes en l'an 2000.

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Executive Summary

- Girls score substantially higher than boys in language skills and this gender difference is already pronounced by the age of 13. Boys and girls do not differ in mathematics achievement at the age of 13; however a gender gap in favour of males, particularly in problem-solving skills seems to emerge by the time students are in their last year of secondary schooling. Simultaneously, with increasing age, the performance of males in mathematics becomes more heterogeneous than that of females. This means that males are over-represented in both the highest and lowest achieving mathematics levels. Gender differences in numeracy are substantially smaller than such differences in literacy.
- Nevertheless, girls are increasingly pulling ahead of boys academically in *all* subject areas. Part of this may be because the school environment is one that girls experience more positively than boys do.
- Both the sentiment to school that boys exhibit and their lower academic performance predict the higher school-leaving behaviour of boys.
- Both young men and young women are, on average, obtaining more education. Nevertheless, four in ten boys currently obtain no more than a high school education. The comparable figure for young women is about three in ten. These levels may not be sufficient to compete effectively for the jobs of the future.
- Women's presence in undergraduate university programs has surpassed that of men's. Women now are just as likely as men to obtain a Master's degree, but they still obtain less than a third (31%) of the doctorates.
- Women form the majority of students in many fields of study. Although their representation has improved in traditionally male fields such as mathematics/physical sciences and engineering/applied sciences, they are still far from equal representation (29% and 20% in these two fields, respectively).
- The labour force participation rates of men and women have become more equal. The main reason for this is the increase in women's participation. A secondary factor is the reduction, since 1981, in men's participation rate. Women's labour force participation seems to have

peaked in the early 1990s, with essentially stable labour force participation rates between 1991 and 1996 for all age groups.

- Traditionally single women had the highest labour force participation rate. This is no longer so. Now it is women with dependent children aged 6 to 15. Economic necessity is probably the underlying reason, since both men and women believe it is not ideal for mothers of young children to work outside the home, especially not on a full-time basis.
- The unemployment rate of women relative to that of men shows three distinct phases. Prior to 1995, the unemployment rate for women was significantly lower than that of men. In contrast, throughout the 1970s, women's unemployment rate was consistently higher than men's. Starting in 1982, the gender unemployment rates have become comparable.
- Currently, keeping age and educational attainment constant, there is no consistent gender difference in unemployment rates. In same age-educational categories women experience a higher unemployment rate; in others, a lower one. Only among the oldest age group do women consistently experience higher unemployment rates than men of the same age bracket and the same educational attainment
- Part-time work has increased for both men and women. Currently, a third of employed women work part time, compared to 15 percent of men. Between 1990 and 1995, however, men experienced the greatest rise in part-time employment.
- The investment returns to education have increased for both women and men. This means that the disparity in earnings between the least- and best-educated segments of Canadian society is also increasing. Although women's income payoff to education is higher than men's payoff, this is primarily because the average income of women who have not graduated from high school is particularly low (about two-thirds of that of similarly educated men).
- Employee benefits coverage has deteriorated in the 1990s, with fewer workers having company-provided retirement plans, medical or dental insurance, or paid maternity leaves. The net impact of the reduction is such that the small gender difference in coverage has become even smaller.

- Occupational segregation by gender is still a dominant feature of the Canadian work scene. Even in occupational categories where women predominate, men tend to hold the better-skilled (and better-paid) jobs. Women continue to be over-represented in the lowest paid occupations, and under-represented in the highest paid ones.

1. Introduction

The main purpose of this report is to document recent educational and labour market activities and experiences of Canadian women and men. It does this with full awareness that the nature and extent of women's and men's educational and labour market activities evolves continuously, partly in response to societal changes, and partly as a result of government policies. It is therefore important to track recent Canadian trends in education and work, focussing on comparing and contrasting the changing situation of women and men. Such temporal information should help set policy priorities.

1.1 Data selection

Since the focus of this paper is on gender, the primary criterion for data selection is that gender had to be a variable in the data set. That is, the data set had to include comparable but separate information for females and males.

Most useful for the purposes at hand would be data that was both national in scope and comparable over time. Census data is one example that fulfils both criteria. Where such data was not available, this report used information that fulfilled one or the other of these criteria. Sometimes national information about the current situation of men and women was found, but no comparable information about that situation in earlier time periods. Other times temporal data at a regional or local level could provide important information and was therefore included. If neither national nor temporal data was available on an issue deemed important, then recent, local, and cross-sectional data was resorted to.

Where possible, the Canadian trends are situated in the context of other industrialized, especially OECD, countries. Knowing whether the Canadian experience is a relatively common one helps to locate the possible sources of the trends as either part and parcel of a globalized economy or in particular features of Canadian society.

1.2 Data analysis

Given the purposes of this report, numerical information will always be analyzed by gender, and, where possible, over time. It is well known that educational and labour market activities also

vary by region, ethnicity and the familial socio-economic position. This report cannot do justice to these additional dimensions. At the same time, it cannot afford to ignore them totally. The compromise is to include region, ethnicity and socio-economic position whenever it is known or suspected that these interact statistically with gender. For example, the gender difference in school leaving behaviour is quite different for the various provinces in Canada. In eastern Canada, boys are substantially more likely than girls to leave school before graduating from high school. This gender difference is much less pronounced in the western provinces. Hence gender differences in school leaving are shown separately by province.

The contours of the gender trends in education and work respond to historical demographic features, such as the shape of the population pyramid and patterns of marriage and divorce.

This report begins by sketching a brief overview of the demographic changes that characterize Canadian society and that set the parameters for the educational and work experience of its members. Following this, the educational participation patterns and experiences will be described, including some information on male and female skill development and use. Next the trends in labour market activities are detailed. This will show in what ways, and to what extent, the human capital investments young women and men make form the basis for subsequent labour market experiences.

2. Trends

The post-war "baby boom" phenomenon continues to shape the demographic features of Canadian society. The declining birth rates since that time result in smaller youth cohorts, both in absolute and in relative terms; there are fewer young people and they form a smaller proportion of the total population. All other things being equal, from this factor alone one would expect less competitive pressure for admission into post-secondary educational institutions and an easier transition into the labour market.

Marriage rates have dropped dramatically in the last quarter century. From over 65 marriages per thousand single, divorced and widowed adult women in the early 1970s, the marriage rate plummeted to less than half that rate (31 per thousand) in 1996 (see Figure 27 in Appendix B). In conjunction with the marked delay in age at marriage, more single women can be expected to be in the labour market. Simultaneously, the divorce rate peaked at about 15 per thousand marriages in 1987 and has since declined gradually to a low of 10 per thousand marriages—a rate that is comparable to that of the mid- to late 1970s. If the current trend continues, divorce rates will return to low levels not seen since the early 1970s (see Figure 27). Whether the decreasing divorce rate is fuelled by economic factors will surely be debated for some time.

Young people, both male and female, are delaying leaving the parental home. This may be occasioned both by the increasing likelihood of attending post-secondary education, and the increasing costs of such education. Remaining in the parental home may be driven by financial considerations to enable such increased educational attainment.

3. Skills

3.1 Gender skill differences in youth

Previous research on gender differences support the following general conclusions with respect to skill achievement in youth (see Friedman 1989; Hyde, Fennema et al. 1990; Willms and Jacobsen 1990):

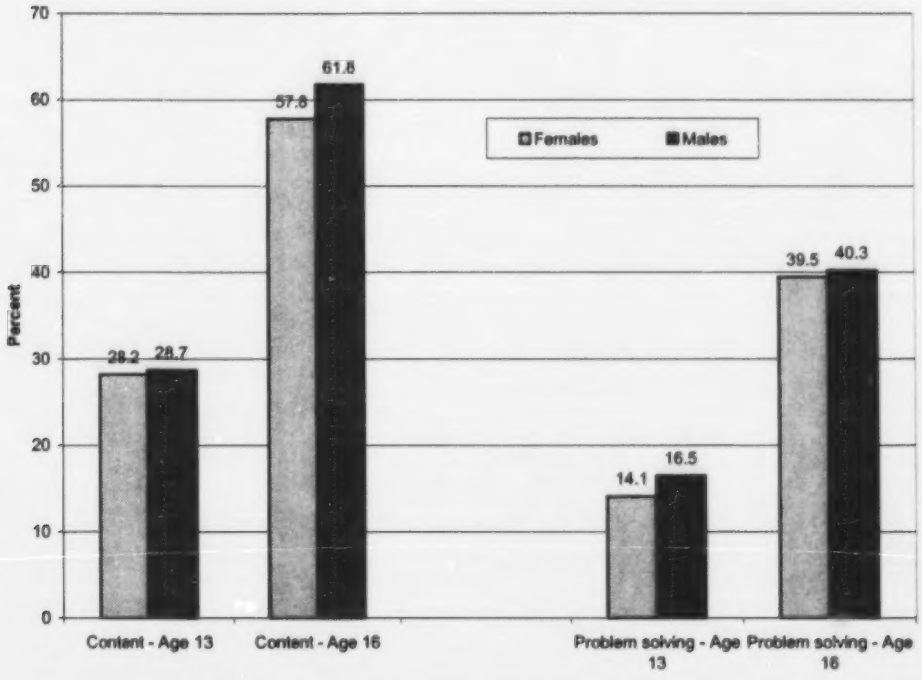
- In mathematical achievement, a negligible or relatively small gender gap in favour of males characterizes the early school years. This gender gap is greatest on math tests that require problem-solving skills.
- Girls perform better than boys in language skills (reading and writing).
- The gender gap in language arts is substantially larger than that in mathematics.
- The gender gap increases in higher grades.
- The gender gap increases with achievement level.
- The gender gap has decreased over time.

Are the Canadian gender differences consistent with these findings? Several national data sets are available to address this question. The Skills Achievement Indicators Program (SAIP) provides relevant Canadian data on skill achievement by ages 13 and 16. Different skill areas are tested in different years, with mathematical content and mathematical problem-solving assessed in 1997.

Consistent with the literature, gender differences in mathematical content achievement are negligible at age 13 (see the first two columns of Figure 1) and somewhat larger but still quite minimal at age 16 (4% more boys than girls achieve level 3 or higher—compare columns 3 and 4 of Figure 1). Likewise consistent with other studies, at age 13 the gender difference in mathematical problem solving is greater than the gender difference in mathematical content achievement. However, in contrast to the literature, the gender gap for problem solving does not increase with age, since at age 16 there is less than a one percentage point difference between boys and girls in scoring at level 3 or higher. By age 16, the gender problem-solving gap is actually less than the gender mathematics content gap, which again contradicts the literature. In

any event, the modest gender differences in these skill areas are consistent with the finding that gender differences in mathematical skills are becoming smaller.

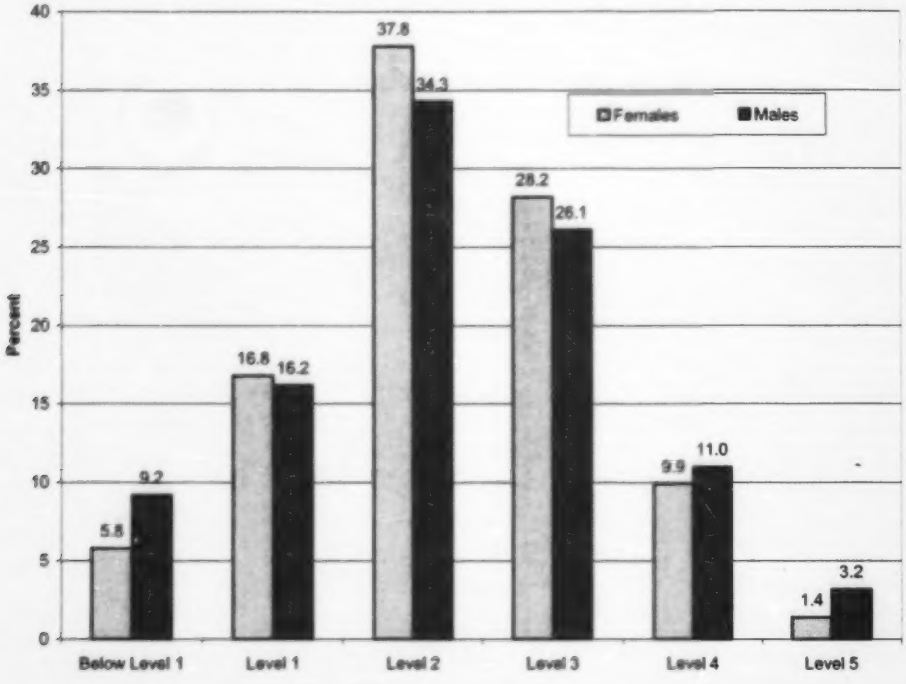
Figure 1 **1997 SAIP Mathematics content and problem solving achievement by age and gender (% scoring level 3 or higher)**



Source: Adapted from 1998 SAIP Appendix E tables (Web site: www.cmec.ca/saip).

To assess whether achievement gender differences become larger at higher levels of achievement, it is necessary to compare achievements at each level, rather than just at one level. This is done in the following figure for the problem-solving skills of 16-year old youth. As Figure 2 shows, boys are somewhat more likely to perform both better and worse than girls. Specifically, boys are over-represented at the lowest level (below level 1) and at the higher levels of achievement (Levels 4 and 5). Similar tendencies can be seen at age 13 and for the mathematical content achievement (figures not shown). This means that the achievement of boys is more variable than that of girls. This puts a different slant on the literature that claims that the gender difference increases with achievement level. With respect to the Canadian data, it would be more accurate to state that the mathematical achievement of boys is more variable than that of girls. Further analysis (not shown) also provides limited support to the expectation that this difference in gender variability increases with age (see Willms and Jacobsen 1990).

Figure 2 **1997 SAIP Mathematical problem solving achievement levels at age 16 by gender**



Source: Adapted from 1998 SAIP Appendix E tables (Web site: www.cmec.ca/saip).

The 1995 Canadian data for the Third International Mathematics and Science Study (TIMSS) (N=8362 students from 384 classes for math achievement) found no statistically significant gender difference in mathematics achievement among Grade 8 students (Zhang 1999). TIMSS also assessed students in their final year of secondary school. By that point in their schooling, relatively large gender differences in the three content areas (math and science literacy, advanced math, and physics) had emerged (this and the following TIMSS findings are reported by Lauzon Forthcoming). The gender difference was largest in physics (9.3 percentage difference) and smallest in math and science literacy (6.1 percentage difference). Part of the gender difference is due to females being less likely to take final year math and physics courses. The gender gap is reduced (but not eliminated) for science and math literacy and for advanced math, but not for physics, when controlling for academic preparation (whether they took final year math, physics or both; or whether currently taking such). At this grade level, there is also consistent evidence that the gender gap increases with increasing levels of achievement. For example, in both the math and science literacy and the advanced math tests, the gender difference among the top 10

percent of the students is at least twice that found among the lowest 10 percent. Furthermore, in contrast to the SAIP study, males perform better than females even among the lowest ten percent of performers.

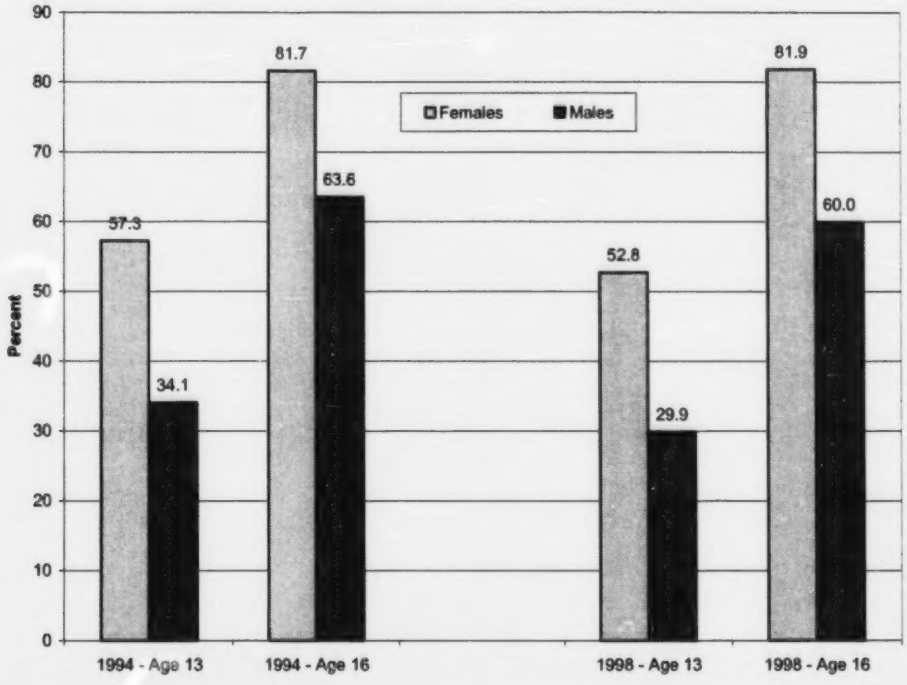
Turning to the reading and writing skills, SAIP collected the first set of such data in 1994 and conducted a second round of assessments on reading and writing skills in 1998. This permits a limited test on whether gender differences in these areas have declined in recent years. By 13 years of age, the expected gender skill difference in reading achievement is already pronounced (see Figure 3). For example, at that age in 1994 over half (57.3%) of the females, but only about a third of the males (34.1%) achieved level 3 or higher scores in reading. Neither boys nor girls performed as well in 1998. There is no consistent evidence that over the four years the gender gap in reading is reduced; among the 13-year olds there appears to be a slight increase in the gender gap, whereas among the 16-year olds the opposite seems to be the case.[1] Likewise, about a fifth more girls than boys achieved level 3 at the age of 16 in 1998. These gender differences in reading and writing skills remain at age 16, although of course the percentages of both boys and girls achieving level 3 increases substantially with age.

The pattern of writing achievements parallels that found for reading. Specifically, there are large gender differences in favour of females in this domain (see Figure 4). Further, these differences do not appear to have diminished between 1994 and 1998. It should be noted that, because of the overall increase in achievement with age, the question of whether the gender gap increases or decreases with age cannot be ascertained from this chart.[2] What can be pointed out, is that in 1998 the writing achievement of 13-year old girls is three years ahead of that of the boys (i.e., at the age of 16, 79.9% of the boys achieve level 3 or better, but 79.8% of girls have achieved such levels by the age of 13.

[1] Caution needs to be exercized here since raw percentage differences over time are not a good basis on which to assess trends in the gender gap, particularly when the overall levels of performance have changed.

[2] Raw percentage differences cannot validly be compared when the overall percentages differ. Technically this is due to the operation of "ceiling effects."

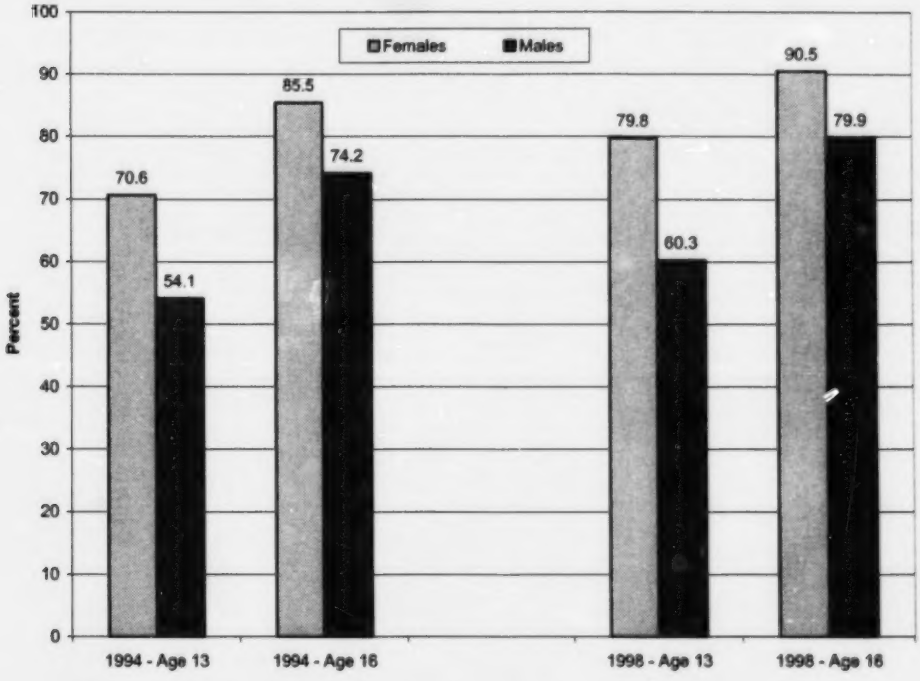
Figure 3 **SAIP Reading achievement by year, age, and gender (% achieving level 3 or higher)**



N = 23,465 for the 1998 reading tests.
Source: Adapted from 1998 SAIP Appendix E tables (Web site: www.cmec.ca/saip).

In summary, the Canadian data generally confirms the previous findings. Girls score substantially higher than boys in language skills and this gender difference is already pronounced by the age of 13. Boys and girls do not differ in mathematics achievement at the age of 13; however a gender gap in favour of males, particularly in problem-solving skills, seems to emerge by the time students are in their last year of secondary schooling. Simultaneously, with increasing age, the performance of males in mathematics becomes more heterogeneous than that of females. This means that males are over-represented in both the highest and lowest achieving mathematics levels, at least on the SAIP measure. On the TIMSS measures for those on their last year of secondary education, the gender gap favours males at all levels of achievement, but becomes progressively greater at higher levels of achievement. It appears nevertheless that any gender differences in numeracy are substantially smaller than such differences in literacy. Hence, with respect to skills attainment, by the end of secondary schooling, girls should be in a somewhat better competitive position than boys.

Figure 4 **SAIP Writing achievement by year, age, and gender (% achieving level 3 or higher)**



N = 21,947 for the 1998 writing tests.
Source: Adapted from 1998 SAIP Appendix E tables (Web site: www.cmec.ca/saip).

3.2 Gender skill differences in adulthood

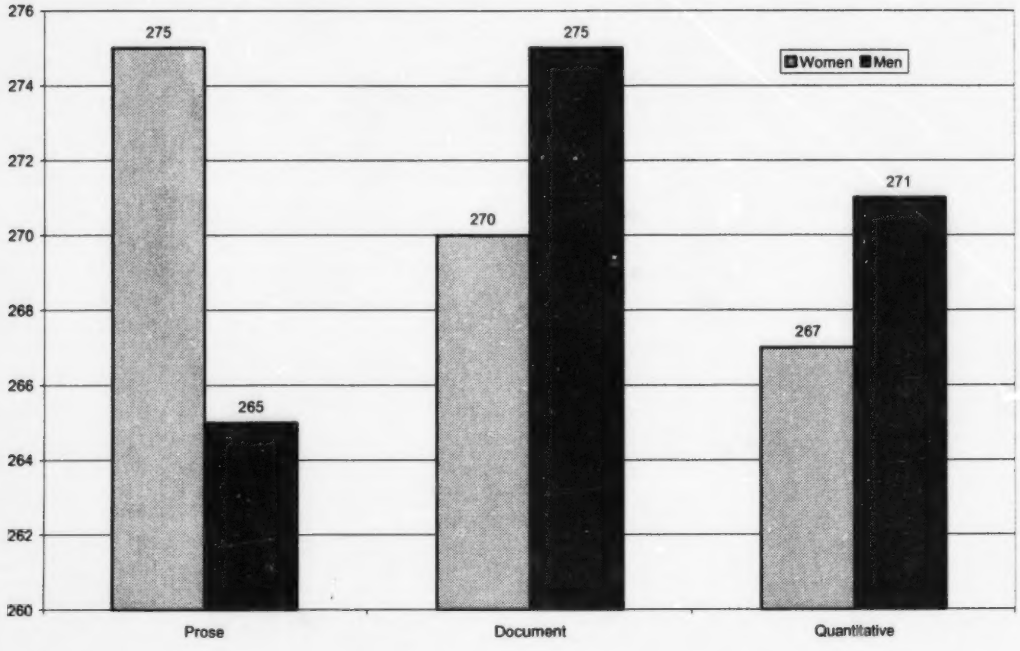
The International Adult Literacy Survey (IALS) found that these patterns continue into adulthood. Figure 5 contrasts the average scores of women and men on each of the three literacy scales. Women outperformed men somewhat in the area of information processing (prose scale) while men did only slightly better than women in areas of processing everyday documents (document scale) and processing printed information requiring some arithmetic problem solving (quantitative scale).

3.3 Computer use and gender

As Table 1 shows, the use of computers by men and women is increasing at both home and work. Computer literacy is now a mandatory skill for employment in a knowledge-based economy. Initially, computer use was thought to be a male domain and that women would consequently be at a competitive disadvantage. Although men are more likely than women to own and use a

home computer, women are actually more likely to use a computer at work; by 1994, over half the women (52%) used a computer at home.

Figure 5 Average literacy score, by scale and gender



N=5747.

Source: Statistics Canada, 1996, calculated from the International Adult Literacy Survey.

Table 1 Computer use at home and at work, by gender (1989 and 1994)

	1989		1994	
	Male	Female	Male	Female
Percent who have a home computer	18%	15%	30%	25%
Mean number of hours spent using home computer	6.7	5.4	7.1	5.3
Percent who use a computer at work	31%	38%	43%	52%
Mean number of hours spent using work computer	13.1	17.3	16.2	19.1

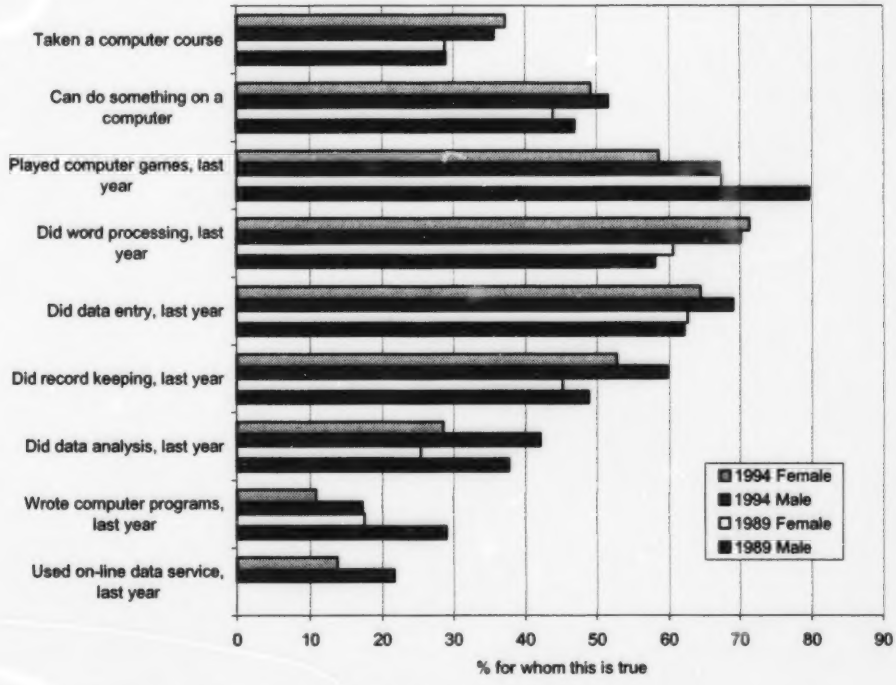
N, home computer use: 1989, Males=4201, Females=5132; 1994, Males=5271, Females=6380.

N, work-place computer use: 1989, Males=2978, Females=2679; 1994, Males=3325, Females=2970.

Source: General Social Survey 1989 (Cycle 4: Education and Work) and 1994 (Cycle 9: Education, Work, and Retirement).

Figure 6 illustrates the gender differences for various uses of computers. For the most part the gender differences are small. In 1994, performing data analysis is the only computer use in which the gender difference exceeded ten percent. Women were somewhat more likely than men to use the computer for word processing. In both 1989 and 1994, the computer tasks that women did less often than men[3] were playing computer games, doing record keeping, doing data analysis, writing computer programs, and using on-line data services. In 1989 there were almost equal proportions of men and women who had taken a computer course but by 1994 the proportion of women who had was somewhat greater.

Figure 6 Computer use and computer skills, by gender (1989 and 1994)



Note: Use of on-line data service was not surveyed in 1989.

N: 1989, Males=4201, Females=5132; 1994 , Males=5271, Females=6380.

Source: General Social Survey 1989 (Cycle 4: Education and Work) and 1994 (Cycle 9: Education, Work, and Retirement).

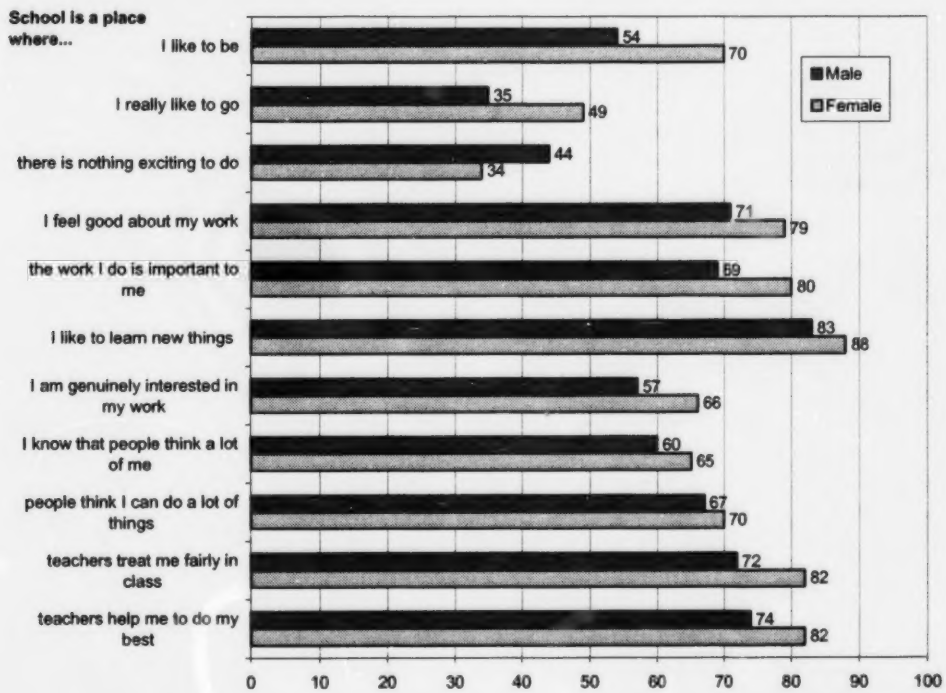
[3] Of those who indicated they could do something on a computer.

4. Gender and education

4.1 School life

Even before students reach high school, consistent gender differences in how they react to school are found. This is clearly shown in the Atlantic Provinces Quality of School Life Survey, which indicate that, by Grade 8, female students consistently responded more positively than males to school (see Figure 7). These gender differences were particularly telling with respect to endorsement of the statements that school is a place they "like to be," and a place they "like to go to." Girls were at least 15 percentage points more likely than boys to endorse these sentiments. What accounts for this finding? What is it about school life that makes boys less satisfied?

Figure 7 **Feelings about school life among Grade 8 students in Atlantic Canada, by gender (% agreeing)**



Source: Atlantic Provinces Education Foundation, 1996, calculated from the Quality of School Life Survey.

4.2 Academic performance

The classes taken in high school and the actual marks received determine the eligibility for various post-secondary programs. Given their crucial importance, it is unfortunate that few

Canadian data sources were found which contained information about academic performance based on official school records. Such information was available for students who were part of the Nova Scotia School-to-Work Transition (NSSWT) project. It confirms that girls consistently obtain higher marks in high school than do boys (see Table 2). The gender difference cuts across all subjects and is particularly pronounced in English. Even in mathematics, girls perform slightly better than boys (from one to five percentage points on average).

Table 2 **High school marks by gender (NSSWT project students)**

	Male	*Female*
English		
Grade 9	72	79
Grade 10	70	77
Grade 11	66	76
Grade 12	66	76
Mathematics		
Grade 9	75	76
Grade 10	69	73
Grade 11	65	69
Grade 12	66	69
GPA		
Grade 9	74	80
Grade 10	70	76
Grade 11	67	74
Grade 12	69	74

Male N=180; Female N=330.

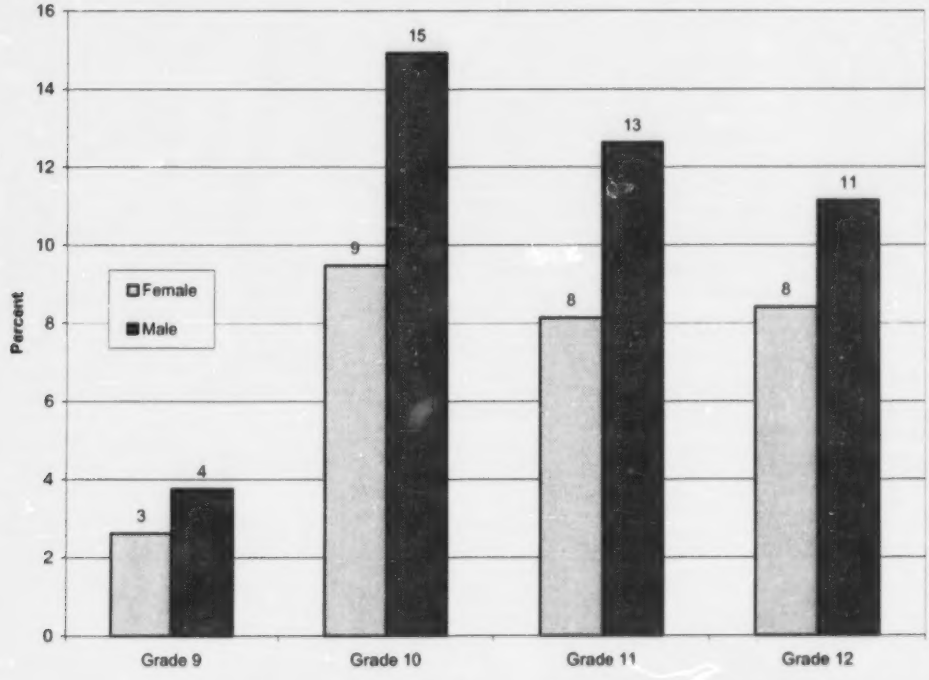
Source: NSSWT high school transcripts.

With a banner proclaiming *Where the boys aren't: At the top of the class*, *The Globe and Mail* recently commented on the lower academic performance of boys (Galt 1998). It reported that the lower performance of boys occurred not just in English skills but in overall academic performance. The article notes that girls, as a proportion of those graduating with honours from high schools in Ontario and British Columbia rose from 53% and 57%, respectively in 1986 to 60% for both provinces in 1996.

4.3 School leaving

The 1991 SLS showed that one in three school leavers had Grade 9 education or less (Gilbert, Barr et al. 1993). Right from the beginning, boys are more likely than girls to leave school. Figure 8 shows this pattern for the province of Nova Scotia. Note that in every year of high school, boys are more likely than girls to withdraw from school.

Figure 8 **1995-96 Nova Scotia withdrawal rates, Grades 9 through 12, by gender**



Note: The withdrawal rate is defined as the number of students who withdrew from school in a given grade, as a percentage of the number of students who were enrolled in that grade.

Source: Information supplied by Nova Scotia Department of Education and Culture, Statistics and Data Entry Section.

By the age of 22 to 24, nine in ten young women in the 1995 School Leavers Follow-up Survey (SLFS) had graduated from high school. Only about eight in ten (81%) of their male counterparts had successfully completed high school. Not only were female youth more likely to graduate from high school, they were also somewhat more likely than male youth to continue with further education [84% and 78% of the female and male graduates respectively, pursued further education or training (Gilbert and Frank 1998)].

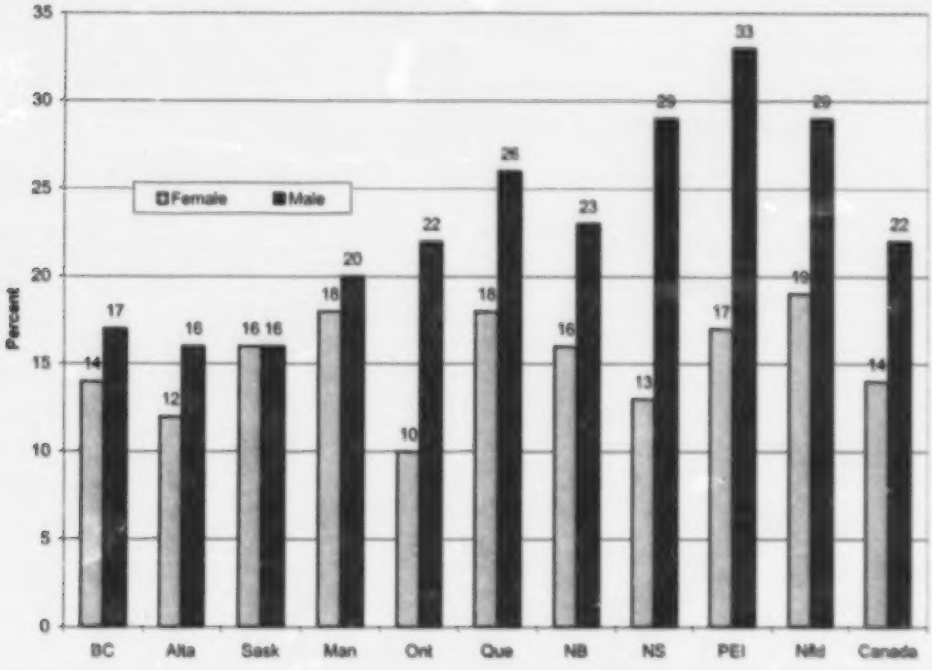
The circumstances surrounding high school leaving differs for the two genders. The focus here is just on the non-returning leavers (youth who in the 1991 SLS had left high school without graduating and who had not returned to complete their high school by the time of the 1995 SLFS). A first difference in circumstance is that family responsibilities played a large role among the young women: 64 percent of the non-returning leavers had dependent children, compared to only 28 percent of their male counterparts. They were also substantially less likely to be single (41% of women; 63% of men). A second factor is the composition of the family of origin. The non-returning female leaver was less likely to come from a two-parent family (54% of the young women non-returning leavers compared to 71% of the young men). Disability constituted a third gender difference in circumstance. Fourteen percent of the non-returning women leavers, but only six percent of the comparable males reported having a disability. In contrast, weak academic performance appeared to be a more salient circumstance for boys than for girls, with only 37 percent of the male, compared to 46 percent of the female, non-returning leavers reporting an average grade of at least a B during their last year of high school.

The conclusion that the circumstances surrounding school leaving are not the same for the two genders is reinforced by the nature of their initial labour market experiences. Among the female leavers, the median time between that event and obtaining a "reference job" (one that lasts at least six consecutive months and involves at least 20 hours of work per week) is 14 months. For the males, the median is 9 months. For no other level of education (except among current post-secondary students) is the gender difference more than one month (Marquardt 1998:24). The family and disability factors among the female leavers could well be the reason for this relatively long delay. Likewise, just over half (53%) the female leavers who were without work were looking for a job during a gap of six months or more, whereas this characterized almost three-quarters (73%) of comparable male leavers (Marquardt 1998:26). The reason young women leavers were not looking for a job may well be because of the family and disability circumstances.

Figure 9 shows school leaving rates by gender and province. Overall, the rate of males leaving school is 8 percentage points higher than for females. This pattern of a greater male rate of school leaving is evident in all provinces but Saskatchewan where the rates for each gender are equal. There are regional differences in the degree of gender disparity. The western provinces

have a much smaller disparity, 0 to 4 percentage points difference, compared to the central and eastern provinces, where the disparity ranges from 10 to 16 points difference. As the female rate remains somewhat consistent in all regions the greater disparity in the east is a result of higher rates of dropping out for males (Gilbert, Barr et al. 1993).

Figure 9 **School leaving rates of 20-year-olds, by province and gender**



Source: Gilbert, Barr, et. al., 1993: 17, calculated from the School Leavers Survey, 1991.

These regional variations in the rate of males dropping out of school has implications for the understanding of the issue of early school leaving. What is it that encourages more males to stay in school in the western provinces or encourages them to leave early in the east? The school satisfaction survey carried out in the Atlantic Provinces indicated that males were less satisfied with school then females. Perhaps dissatisfaction is higher among males in the east then the west, prompting them to leave school earlier. School satisfaction surveys should be conducted across the country to reveal any possible differences. Since, for males, work-related reasons are the second most important for leaving school, some part of the explanation of regional differences may lie in economic differences. What are the different job opportunities facing

young men in different areas of the country and how does that effect their decisions to leave school?

4.4 Educational attainment

A snapshot of the current distribution of educational attainment by age and gender provides some important insights about the changing nature of education. The first row of Table 3 supports two conclusions. First, the older a resident of Canada is, the more likely it is that their highest level of education is less than Grade 9. To take the two extremes, close to four in ten Canadians of traditional retirement age have less than Grade 9 education, compared with less than three percent of 20- to 24-year olds. Second, at all age groups, males are slightly more likely than females to have achieved less than Grade 9 education. This latter finding is to be expected, given the higher school leaving rates among boys.

Table 3 **Educational attainment, by age and gender (1996)**

	20-24 years		*25-34 years*		*35-44 years*		*45-64 years*		*65 years and over*	
	M	F	M	F	M	F	M	F	M	F
Less than grade 9	2.9	2.2	3.8	3.0	5.2	4.7	18.6	18.2	38.6	37.1
Grades 9 to 13	37.9	28.3	35.1	31.1	37.7	38.7	35.5	40.6	34.9	40.6
Some post-secondary	50.7	56.2	42.3	45.3	39.1	40.1	29.4	30.5	17.6	18.6
University degree	8.6	13.2	18.9	20.6	17.9	16.5	16.4	10.7	8.9	3.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Key: M=Males and F=Females.

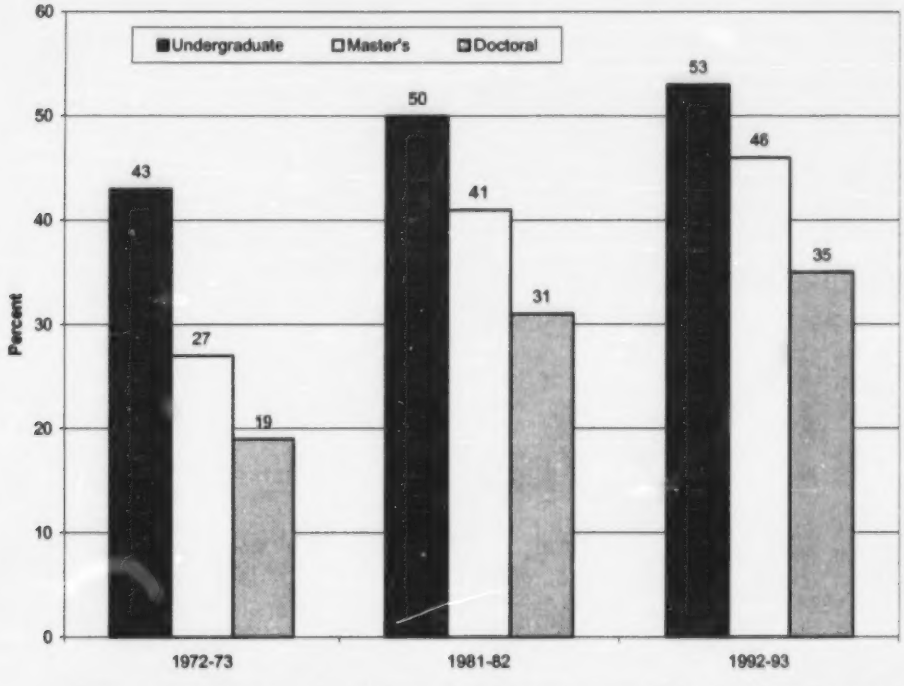
Source: Statistics Canada, The Nation Series, calculated from 1996 census data.

The second row of this table is perhaps the most interesting. Among youth, men are substantially more likely than women to have attended high school but not any post-secondary institution. This is especially the case for the youngest age group. Among those aged 35 and older, the reverse is true, with a higher percentage of women than men having attended high school but not any post-secondary institution. This finding suggests a trend in which the group least prepared for the changing labour market will be found most concentrated among young men.

The mirror image to the above pattern is to be found for those who have obtained a university degree. That is, among younger Canadians, women outnumber men, while among older Canadians, men are more likely than women to possess a university degree.

Given the age and gender distribution of educational attainment documented above, it is hardly surprising to note that women's presence in universities has grown markedly. Women now outnumber men in undergraduate programs and are closing the gender gap at the Master's level (Figure 10). Between 1972-73 and 1992-93, the proportion of women in doctoral programs has almost doubled (comprising 19% and 35% of full-time enrolments at these two time points, respectively. Nevertheless, at 35 percent of full-time doctoral students, women remain a distinct minority.

Figure 10 **Women as a percentage of full-time university enrolment, by level (1972-73, 1981-82 and 1992-93)**



Source: Normaud, Women in Canada: A Statistical Report, 1995, data from Statistics Canada, Education, Culture and Tourism Division.

Could increased child care and household duties be the main deterrent to women's greater participation in doctoral programs? Certainly that is the age range where such responsibilities are likely to be burdensome. That is, the delay in age at marriage and parenthood that has

occurred in Canada over the past several decades would facilitate women's enrolment most in undergraduate and least in doctoral programs. A further indicator that supports such an interpretation is the fact that the percentage of undergraduate and Master's degrees awarded to women during the 1995-96 academic year is even higher than their share of the enrolment while the reverse is true for doctorates. In that year, 58 percent of the undergraduate degrees, and 50 percent of the Master's degrees but only 31 percent of the doctorates, were awarded to women (Statistics Canada 1998b). This may be an indication that some women were able to start a doctorate, but not to complete it, prior to family obligations.

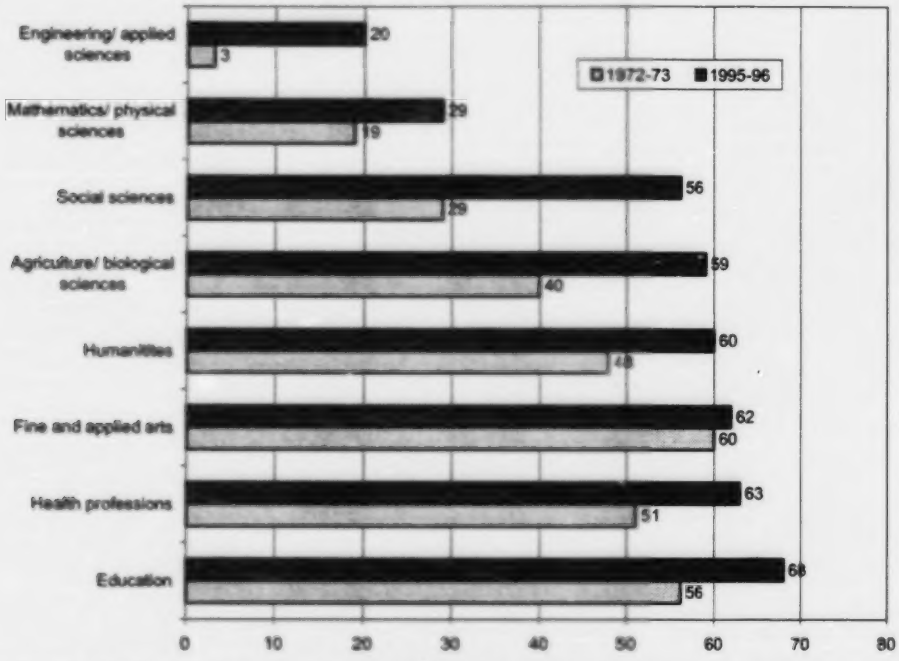
4.5 Fields of study

In university, women and men have traditionally favoured different fields. As shown in Figure 11, in 1972-73 women accounted for only three percent of full-time students in engineering and applied sciences but 60 percent of fine and applied arts students. In only two other fields (education and health professions) did women comprise a majority, although they came close to being equally represented in the humanities (48% women).

By 1995-96, several major changes had occurred. First, women now represented a clear majority in six of the eight fields of study. Only in engineering/applied sciences and mathematics/physical sciences did they remain a minority. Second, the social sciences received the greatest influx, with women comprising a clear majority (56%) of full-time students in 1995-96, compared to being less than three in every ten in 1972-73. Third, substantial progress in women's representation was made in one of the two traditional male fields, namely engineering/applied sciences.[4] Although the percentage of women students in mathematics/physical sciences is now ten percent greater than about 25 years ago, this increase nevertheless represents one of the smaller increases (the only smaller increase in proportion of women was in the fine and applied arts).

[4] These categories are so broad that they may mask substantial amounts of gender segregation in field of studies. It is well known that all measures of segregation indicate greater segregation, the finer the categories being used. In the particular case, for example, it may very well be that the proportion of women engineering students has hardly changed, and that the calculated increase in women is due to the popularity of certain applied science programs, such as environmental science.

Figure 11 **Women as proportion of total full-time university enrolment, by field of study (1972-73 and 1995-96)**



Note: Includes undergraduate and graduate students, except those in graduate certificate and diploma programs.

Source: Statistics Canada, Education in Canada, 1976 and 1997.

4.6 Preparation for labour force participation

A number of indicators suggest that young women are increasingly better positioned than young men for successful labour force participation. For example, twice as many female as male high school students applied to the NSSWT program. This program was designed to facilitate young people's transition from school to work or to further education.

Likewise, young women currently seem to have higher educational aspirations than young men. In the NSSWT data, for example, both at the start and at the end of the program, girls were between 12 and 13 percentage points more likely than boys to expect to continue their education until they obtained at least a university degree.

Many observers consider volunteer work as a form of preparation for participation in the labour market. Among the NSSWT students, 13 percent more girls than boys engaged in volunteer work during both Grades 11 and 12. They were also more likely to envision themselves being engaged in volunteer work three years after completing high school (38% versus 22% for girls and boys, respectively).

5. Gender and labour market experiences

5.1 Labour force participation rate

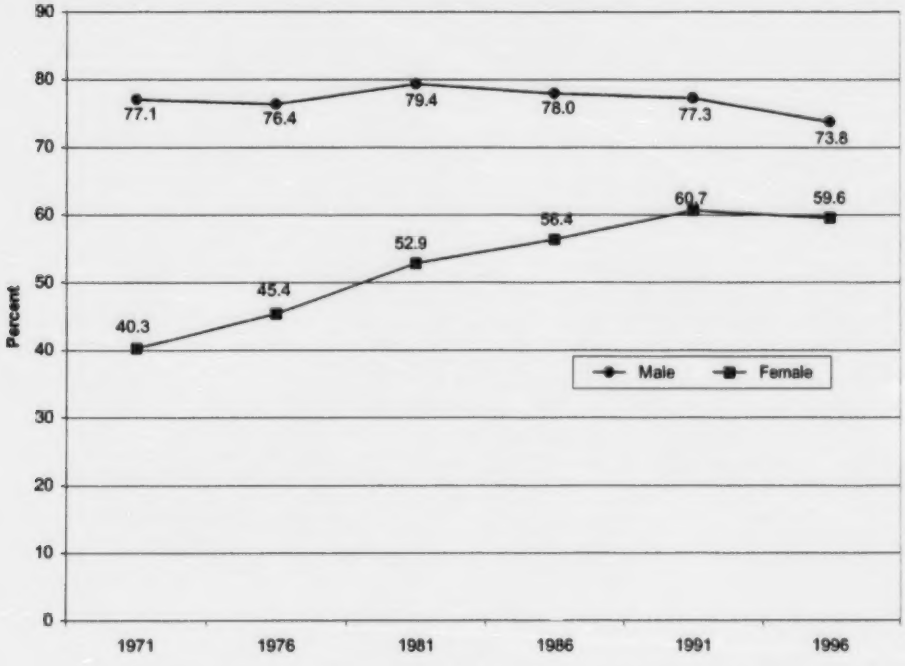
Over the past quarter century, the trends in labour force participation have been quite different for women and men. Women's participation in the labour force reached its zenith in 1991, at which time at least six in every ten women (60.7%) were either employed or actively looking for work. Since then, a small decline (to 59.6%) has occurred. In contrast, men's labour force participation peaked in 1981, when nearly eight in every ten men (79.4%) were in the labour market. Their participation rate has declined since then, at first gradually, but then rather sharply between 1991 and 1996. The overall impact of these two trends is to diminish the gender difference in labour force participation rates. In 1971, the participation rates of men and women differed by 36.8 percentage points; by 1996, this had declined to 14.2 percentage points.

It is unlikely that women's labour force participation will increase much beyond the current level, unless major societal changes occur. As will be seen later, the majority of Canadians, both men and women, believe it is appropriate for the woman to step out of the labour market when she becomes a mother, and to remain out of the labour market at least until the youngest child is in school. Initial research into the reason for the recent decline in women's labour force participation is not altogether congruent with this speculation (Butlin 1995). Consistent with the expectation, the decline occurred among women between the ages of 25-34, which is the age group most likely to have toddlers. However, it also seemed to be concentrated among women not currently married. This is not in line with the expectation. There is also some indication that the decline was concentrated among women with limited education. This is a group, as will be seen later, which has a particularly difficult time to obtain paid employment.

Turning to youth, Figure 13 shows both similar and dissimilar gender participation trends between 1981 and 1996. First, the dominant trend among young males is a continuously declining participation rate; the only exception is for young men aged 20-24 years between 1986 and 1991, where it rose from 48.4% to 49.1%. Second, young women's labour force participation rate increased slowly in the 1980s. Third, the labour force participation rate dropped substantially in the first half of the 1990s for all youth groups regardless of gender. This

drop is probably due to the trend of increased participation in full-time education among young people.

Figure 12 **Labour force participation rates, by gender (1971 - 1996)**



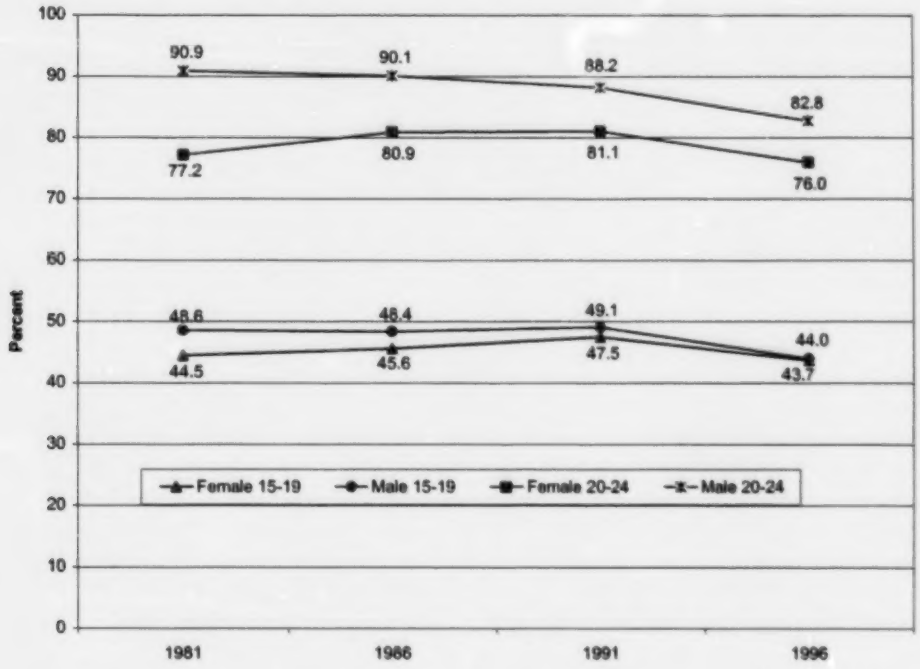
Source: Statistics Canada, The Nation Series, calculated from 1971 - 1996 census data.

The net impact of these gender trends is a reduction in the gender participation gap among both teenagers and young adults between 1981 and 1996. Indeed, among teenagers, the gender difference in participation rates is negligible (44% and 43.7% respectively).

Among adult men, the trend in participation rates is similar to that of youth (see Figure 14). Regardless of age group, the trend, with minor exceptions, is a decline in participation rates. This trend is particularly among men in the 55-64 age group, where it dropped from 77.4 percent to 62 percent. Women aged 65 and older also seem to be reducing their participation somewhat. In contrast, the trend among the remaining adult women has been a general increase in participation rates. This increase was especially marked in the 1980s among women aged 25 to 54. The first half of the 1990s shows essentially stable participation rates among women.

As was the case among youth, the overall impact of these different gender participation trends is a narrowing of the gender participation gap over time among all age groups. Nevertheless, the male labour force participation rates still exceed those of comparably aged females. As already stated, only among teenagers is this gap essentially eliminated.

Figure 13 **Youth labour force participation rates by gender, 1981-1986**



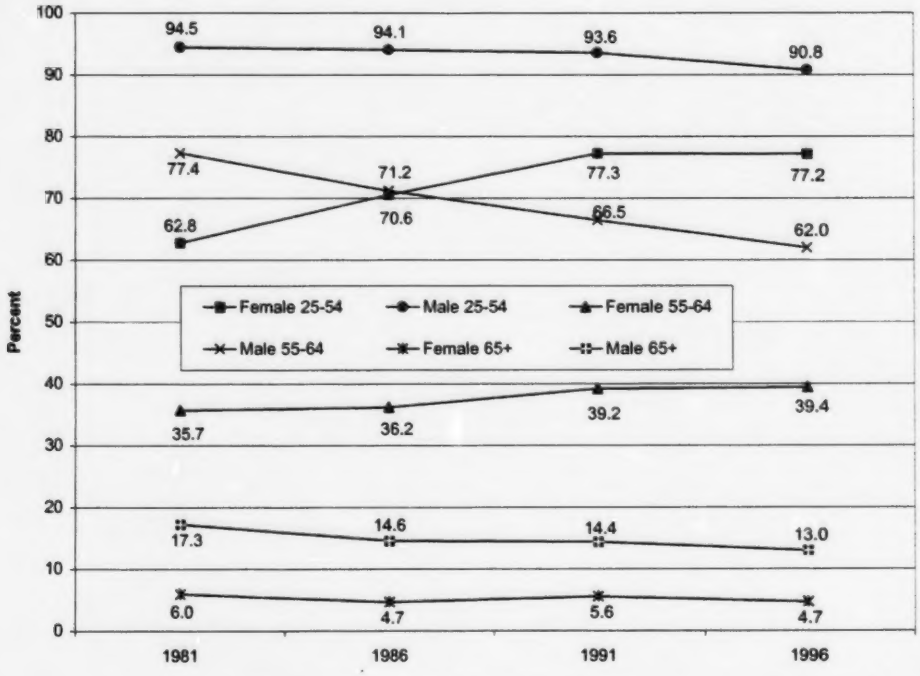
Source: Statistics Canada; data selected from Catalogue No. 93F0027XDB96001 in The Nation Series.

5.2 Life course factors

From 1975 until 1984, the group of women with the highest labour force participation rate was single women and those with the lowest participation rate had children under the age of 3 (see Figure 15). This is consistent with recent beliefs about when it is appropriate for women to work outside of the home; it is most appropriate before they marry and least appropriate while they have pre-school aged children. After 1984, the participation of certain groups of women in the labour force became less consistent with popular opinion. Women with young children no longer had the lowest participation rates. Instead it was the overall rate for women over the age of 15 that is the lowest and then the rate for married women. Single women no longer had the highest participation rate, it is now women with dependent children aged 6-15 and then those

with children aged 3-5. Having young children does not have the same effect on women's labour force participation even though popular opinion is so strongly against women working while they have pre-school aged children.

Figure 14 **Adult labour force participation rates by gender, 1981-1986**

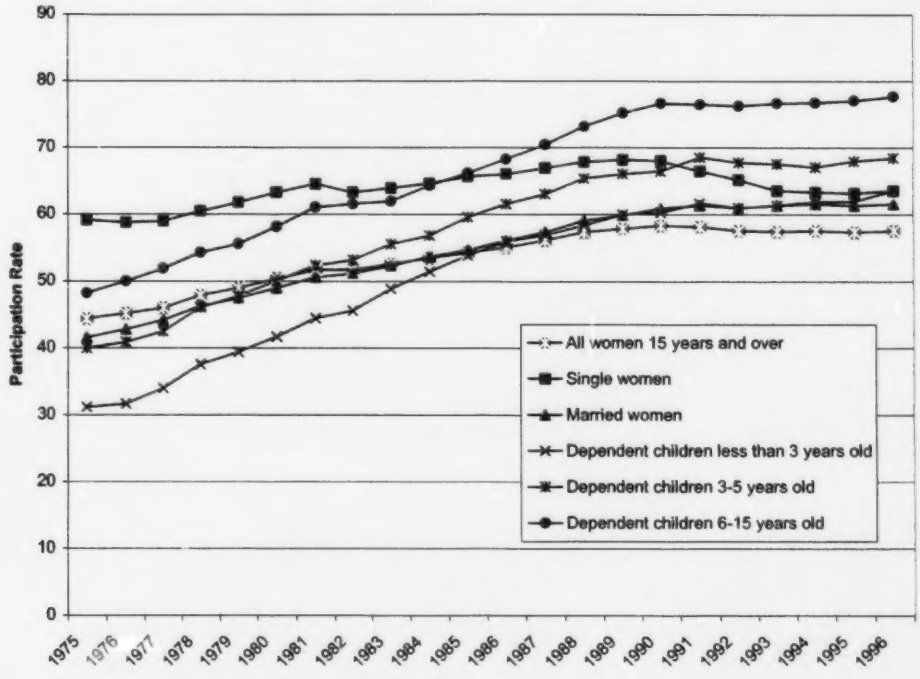


Source: Statistics Canada; data selected from Catalogue No. 93F0027XDB96001 in The Nation Series.

5.3 Children and work

Whether or not a woman has young children has had a significant influence on the proportion of Canadians who endorse her having employment outside of the home (as seen in Table 4). Consistently, from 1970 to 1982, it was much more acceptable for a married woman to work outside of the home when she had no young children than when she did have young children. During this time period, increasing proportions of Canadians were receptive to married women working outside of the home, with or without young children. The proportions agreeing that women with no young children should take a job increased from 72% of men and 82% of women in 1970 to 85% and 88% in 1982, respectively. The same proportions for those agreeing that women with young children should take a job outside of the home were 12% of men and 14% of

Figure 15 **Participation rate of women, by life course factors (1975-1996)**



Source: Statistics Canada, Historical Labour Force Statistics, 1973, 1974, 1983, 1984; The Labour Force, December issues (annual averages), 1985-1989; Labour Force Annual Averages, 1990-1996.

women in 1970 and 36% of men and 41% of women in 1982. The greater gains were for agreement to women with young children taking work outside of the home. This served to narrow the gap between the proportions endorsing employment of women with and without young children but still more people agreed that it was okay for women without young children. As for the gender differences in agreement, women are more likely to agree that women should work outside of the home than men are. This difference between men and women in agreement is usually quite small (0-3% more of women agreeing). The exceptions are that in 1970, 10% more women than men agreed to women without young children working and that in 1982, 5% more women than men agreed that women with young children should work outside the home.

Few Canadians currently feel women should not work under any circumstances. Indeed, more than 90 percent feel that women should work full time after marriage but before there are children (see Table 5). This feeling changes dramatically as soon as a toddler enters the picture. Now less than one in five men as well as women believe it is appropriate for a woman to work full time when there is a child under school age. Once the youngest child is in school, still only

half or fewer Canadians indicated a woman should work full time. This survey did not ask the same questions with respect to whether men should work full time, presumably because it is taken for granted that the presence of children should not affect whether a man works outside the home. The conclusion to be drawn from this table is that Canadians of both sexes believe that women should either limit or quit work outside the home when pre-school children are in the household.

Table 4 Opinions about married women working outside of the home with or without young children (1970-1982)

Agree that married women should take a job outside the home if:	Male %	Female %
They have no young children		
1970	72	82
1975	76	76
1980	81	83
1982	85	88
They have young children		
1970	12	14
1975	18	18
1980	31	33
1982	36	41

N: 1970 Males=338, Females=332; 1975 Males=544, Females=509; 1980 Males=516, Females=510; 1982 Males=520, Females=527.

Source: Gallup polls 340 (March, 1970), 372 (January, 1975), 433A (January, 1980), and 457 (January, 1982); (Boyd 1984).

Table 5 Opinions about women working outside the home at various points in the family life course

Percent agreeing that women should work full-time outside the home under these circumstances:	Male %	Female %
After marrying and before there are children	92	96
When there is a child under school age	19	18
After the youngest child starts school	45	50
After the children leave home	81	83

Source: 1994 ISSP (Canadian sample only). N = 1,440; information from between 31 and 58 respondents was not ascertained.

Table 6 permits a contrast of the opinions with the behaviours. Some interesting facts emerge. Fewer women work full time after marriage and before there are children than one might expect

from the opinions on that topic alone. That is in all likelihood a function of the changing times, since older women were less likely to have worked after getting married, but are nevertheless in agreement with the current norms. In contrast, more women worked while they had a pre-school child in the home than the public would endorse. That is, the previous table showed that about one in five Canadians felt it would be appropriate for a mother to work full time at that point in time, but over a third (36%) stated they did work full time. This may reflect that economic necessity pressures mothers in some households to engage in undesired labour market activity. Note also that fathers were less likely to report working full time during this time period, with only 83 percent reporting doing so. This is somewhat perplexing, since 96 percent of the women reported that their (male) partners were employed full time during this time period. Finally, although the public endorses women's increased labour market activity from the point of time that the youngest child is in school onwards, the actual resumption of labour market activity once all the children have left home is substantially less. Since by definition such mothers are relatively old, it remains an open question whether the new opinion climate will be sufficient to permit women in the future to resume their labour market activities after the hiatus occasioned by parenthood.

Table 6 **Percent working outside the home at various points in the family life course, by gender**

Percent of households in which partners worked full time outside the home:	Male partner %	Female partner %	Number of households
After marrying and before there are children	94	83	822
When there is a child under school age	83	36	820
After the youngest child starts school	92	46	661
After the children leave home	90	56	342

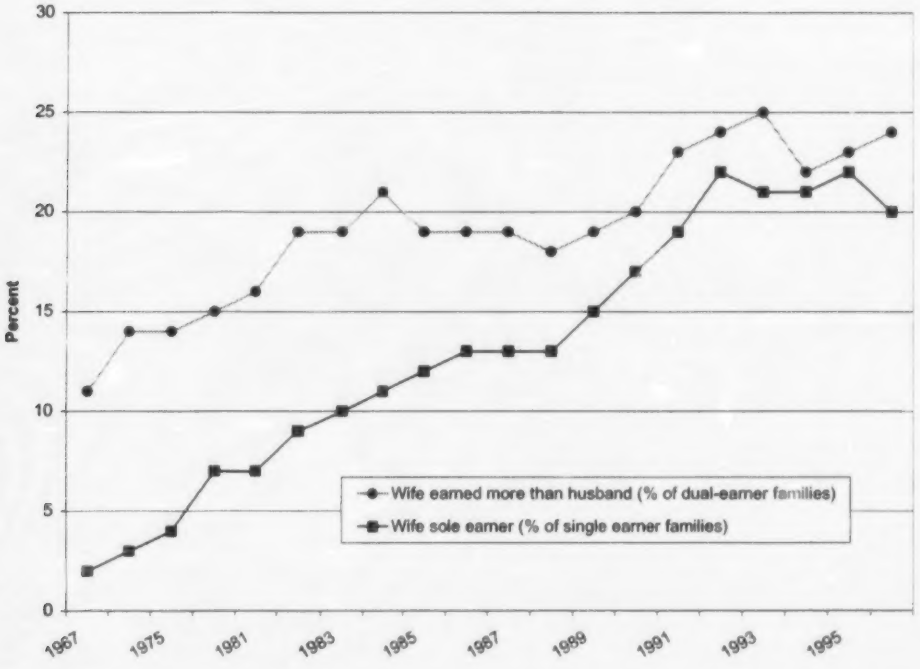
Source: 1994 ISSP (Canadian sample only). N = 1,440. These questions were asked only of the applicable households as indicated in the final column.

5.4 Relative income of partner

In the 1994 ISSP survey, respondents were asked how much their partner made relative to their own income. Of the 795 couples in which both partners worked, 52 percent indicated the male earned "much more" and additional 20 percent indicated "a bit more." In only six percent of the households was it reported that the female earned "much more" (and 8% indicated "a bit more").

The proportions of husband-wife homes where women are the primary wage earners have been increasing since 1967. Figure 16 shows that the proportion of dual-earner couples where the wife earns more than the husband has risen from 11% in 1967 to 24% in 1996. The rise in the proportion of sole-earner couples with the wife as the earner has made a more steady and dramatic increase over this time period. While the overall proportions of households with only one earner has decreased, the loss has been to households with males as the sole earners. This has meant that the proportion of sole-earner households where the woman is the wage earner has increased from 2% in 1967 to of 20% in 1995, an increase of 18% over 29 years.

Figure 16 **Proportion of husband-wife households where the woman is the primary wage earner (1967-1996)**

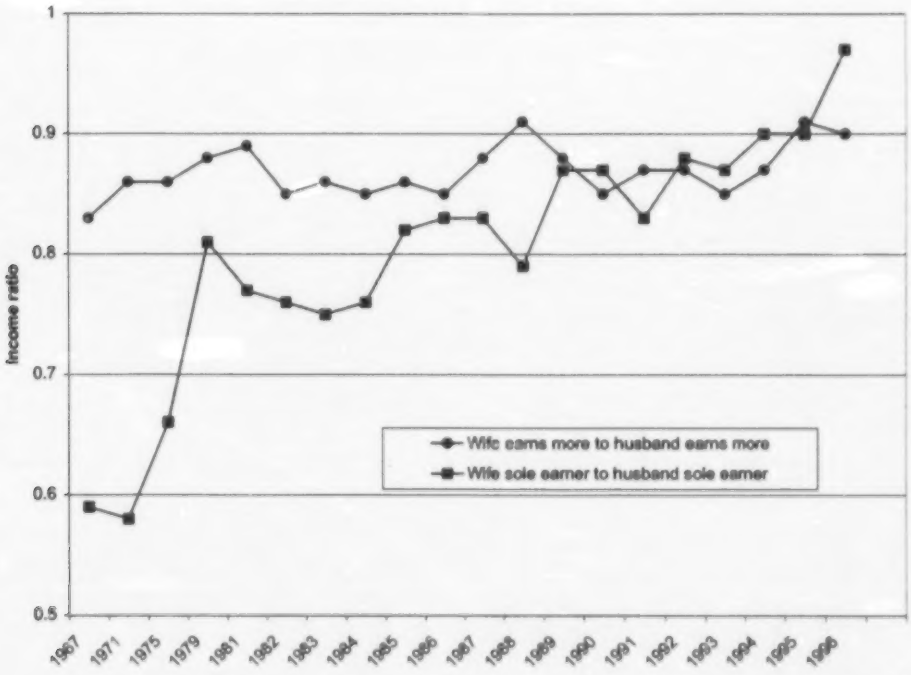


Source: Statistics Canada, Characteristics of Dual-Earner Families, 1996, data from the Survey of Consumer Finances.

Crompton and Geran (1995) have examined the reasons for these increases. One explanation for the increase in dual-earner homes where the women earns more than men is found in the fact that over this same time period the average earnings of women have increased at a faster rate than have men's. Between 1967 and 1993 the increase to women's average earnings was 63% while it

was only 18% for men's earnings during this time period.[5] These authors attribute the accelerated proportional increase between 1991 and 1993 to the recession during which a significantly greater proportion of men than women were affected by job loss. This served to lower the incomes of men because of partial employment during the year and movement into lower paying jobs. As for the increase to sole-earner households where women are the sole wage earners, Crompton and Geran (1995) attribute this to population aging. They found that in households with women as the sole wage earners the couples were older than in those with men as the sole-earners. More and more households are characterised by a retired husband and a wife that continues to work, usually on a part-time basis.

Figure 17 **Income ratios of women as primary wage earners to men as primary wage earners (1967-1996)**



Source: Statistics Canada, Characteristics of Dual-Earner Families, 1996, data from the Survey of Consumer Finances.

It is important to keep in mind that these families in which women are the primary wage earners have, on average, lower incomes than in those families with men as the primary wage earners.

[5] The greatest increases in earnings for both men and women occurred between the years 1967 and 1989 when it was 60% for women and 25% for men. Between 1989 and 1993 the increase for women was only 2% while men's average earnings actually decreased by 6%.

Figure 17 illustrates that for both situations in which women are the primary wage earners the average family income is lower than for those in which the husband in the primary wage earner. The ratio of family income for dual-earner families in which the wife earns more compared to those families where the husband earns more is ranges between .83 and .91. Although their incomes are lower, earnings of women in the families in which they earn the most play a significant role in keeping their family's income above the poverty line. This is not true for the wife's income in families where the husband earns more (Crompton and Geran 1995).

The ratio for sole-earner families over time has varied quite a bit, from being significantly lower than the ratio for dual-earner families in 1967 to being higher in 1996. In 1996, the average income of families with the wife as sole earner was almost equal to the average income of families with the husband as sole earner (.97).

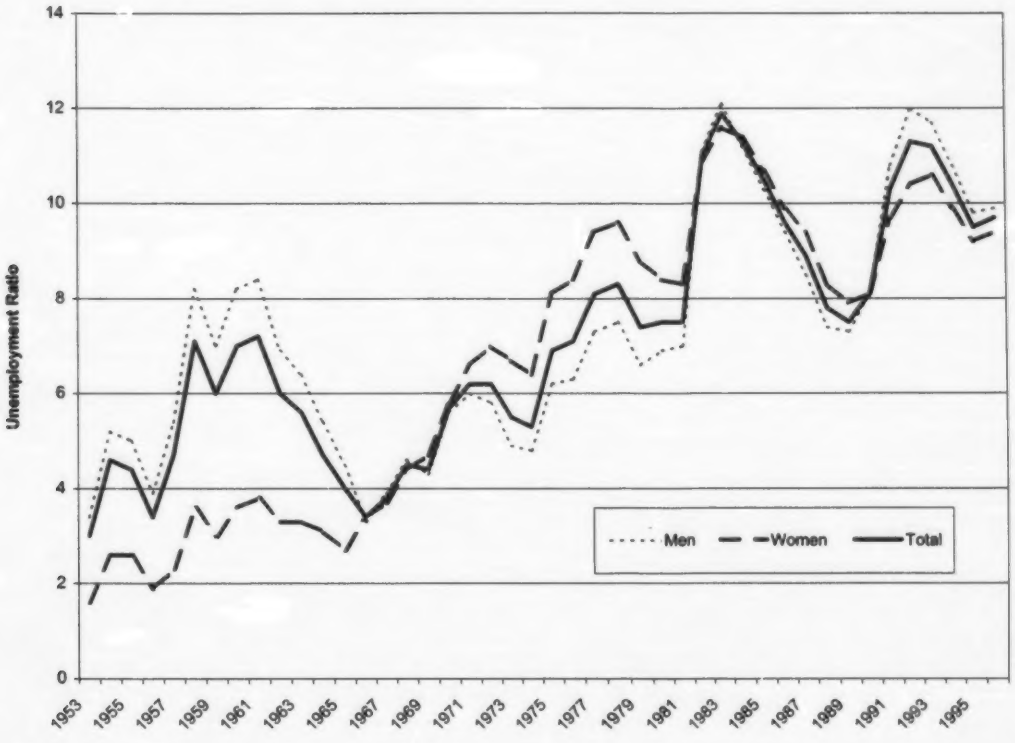
5.5 Unemployment

Figure 18 shows the change in unemployment rates for both men and women over a 43-year-period. The overall trend is an increase in unemployment for both genders but the greater increase has been for women. Between 1953 and 1965, women's unemployment rate was significantly lower than men's. During that time period, women's unemployment ranged from 1.6% to 3.8%. The range for men in that period was from 3.4% to 8.4%. Between 1966 and 1971, the unemployment rates for both genders were very similar and the rates increased over that time period from 3.4% to 6.2%. From 1972 to 1981 the unemployment rates for women were consistently higher than men's. Again in 1982, the rates for both genders were similar, with both genders experiencing great degrees of fluctuation in their unemployment rates due to economic recessions during the mid 1980s and the mid 1990s.

As is well known, youth unemployment rates differ substantially from those of adults. It is therefore important to look more closely at the unemployment rates for the different age groups. Figure 19 shows the trends in unemployment rates for young men and women. Throughout most of the time period 1981-1996, teenaged men and women had the highest unemployment rate of any group (the exception is 1991, when men aged 20-24 had a higher unemployment rate). The gender unemployment gap among teenagers is consistently small, never exceeding one

percentage point. This age group also shows the greatest vulnerability to the economic climate, experiencing the largest variability in unemployment rates.

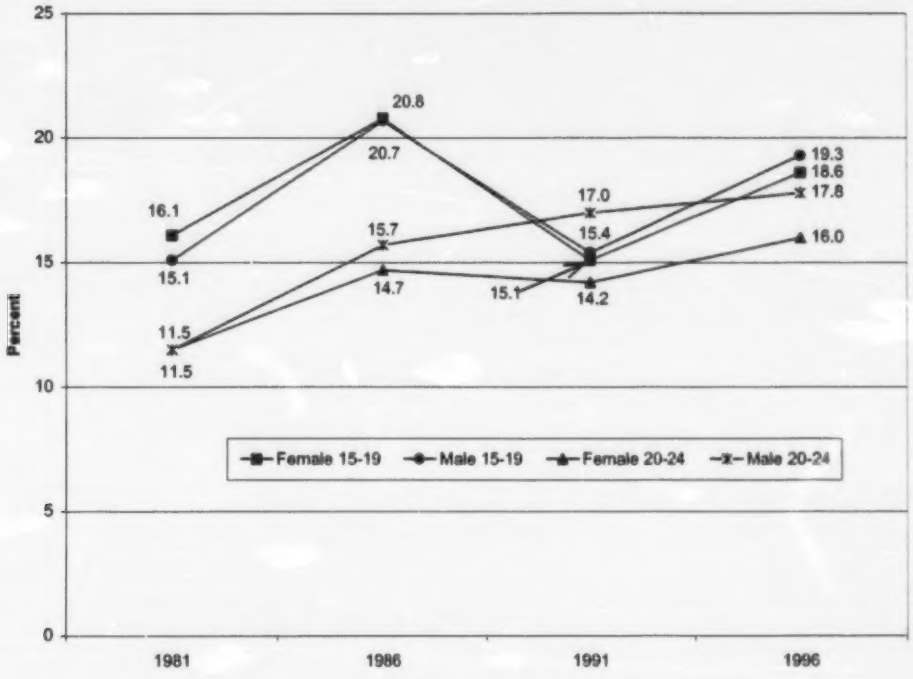
Figure 18 **Unemployment rates, by gender (1953-1996)**



Source: Statistics Canada, Historical Labour Force Statistics, 1973, 1974, 1983, 1984; The Labour Force, December issues (annual averages), 1985-1989; Labour Force Annual Averages, 1990-1996.

Male and female youth between the ages of 20 and 24 started at identical unemployment rates in 1981. The gender unemployment gap among these young Canadians increased to 2.7 percentage points by 1991, with young women experiencing less unemployment than their male counterparts. In the most recent time period, the gender unemployment gap became somewhat smaller (1.8 percentage points). Note also that the unemployment rate of young men has consistently risen over this time period, although the increase has tapered down in the most recent time period.

Figure 19 Youth unemployment rates by gender, 1981-1996



Source: Statistics Canada; data selected from Catalogue No. 93F0027XDB96001 in the Nation Series.

The unemployment rate among adults reveals some important differences in the gender trends (see Figure 20). First, all groups regardless of age or gender experienced increased unemployment rates between 1981 and 1986. Second, among males this increase continued during the subsequent five years in each of the age groups. This is in stark contrast with the women, whose unemployment rate decreased (or remained constant) during the same time period. In the most recent time period, the unemployment rate among males essentially stabilized, with no more than a fifth of a percentage point change in unemployment rates between 1991 and 1996 in any age group. In contrast, among women, the downward trend in unemployment rates continued, except among those at least 65 years old.

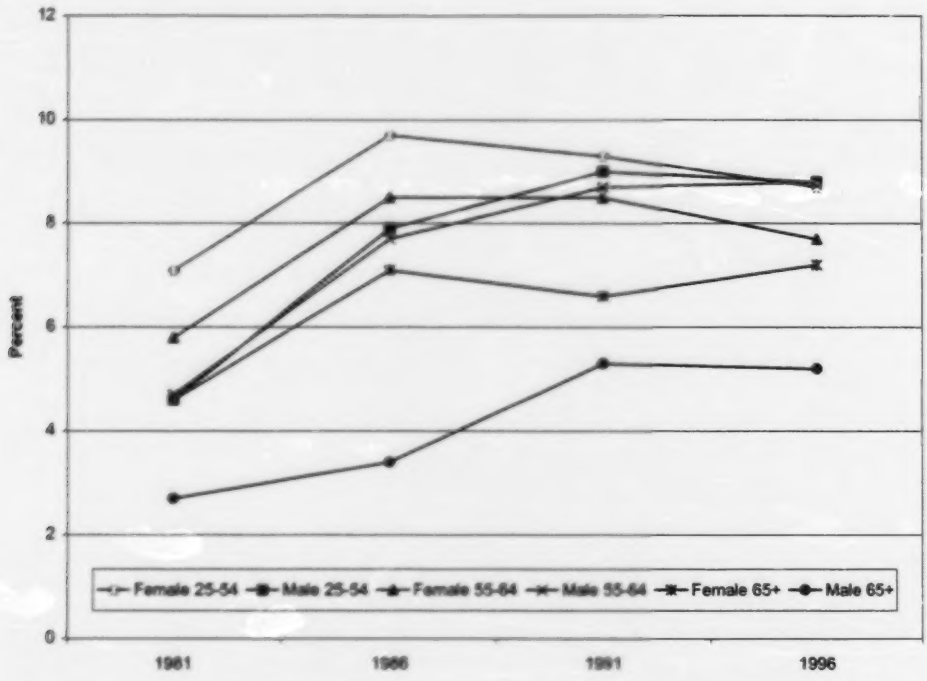
These different trends for men and women created significant changes in the unemployment experience of men and women. In the first time period, the unemployment rate of women is consistently lower than that of comparably aged men. By 1991 this is no longer the case. By 1996 the unemployment rates of all adult age and gender groups (except men at least 65 years old) are quite similar (between 7.7% and 8.8%). In short, in the decade between 1986 and 1996,

adult women's labour market experiences with respect to unemployment were relatively better than those of men. In all likelihood this can be attributed to some extent to the growth of the sales and service—and the decline in the manufacturing—sectors.

Educational achievement is another factor that is known to affect unemployment. The question is whether women currently experience similar rates of unemployment as men of the same educational level and age. This question is addressed in Figure 21. The overall answer is fairly clear: keeping age and educational attainment constant, there is no consistent gender difference in unemployment rates. In same age-educational categories women experience a higher unemployment rate; in others, a lower one. Only among the oldest age group do women consistently experience higher unemployment rates than men of the same age bracket and the same educational attainment (compare the last bar with the second last bar of each educational level).

Two other gender differences should be noted. First, women aged 20-44 who have not completed high school exhibit particularly high levels of unemployment, compared to men of the same age and education (16.6% versus 11.7%). Second, possession of a trades certificate or diploma does not reduce the risk of unemployment for women. This conclusion is derived by comparing the unemployment rates of women whose highest educational level is a high school certificate with those who have a trades certificate or diploma. In each age group, the unemployment rate of women who have a trades certificate or diploma is actually *higher* than that found in the comparable age group among women who simply have a high school certificate. The possession of a trades certificate or diploma does not provide men with much of an advantage in this respect either, although it appears to result in a lower unemployment rate among those aged 20-44 years.

Figure 20 **Adult unemployment rates by gender, 1981-1996**



Source: Statistics Canada; data selected from Catalogue No. 93F0027XDB96001 in the Nation Series.

Among teenagers, educational level has no consistent impact on unemployment rate. This probably means that teenagers compete for the same types of jobs regardless of their educational level. These are likely to be sales and service, and part-time or summer jobs. The high unemployment rate among university-educated teenagers should be treated with caution because the number of such cases active in the labour force is small (1,850 men and 2,600 women). Given their high educational attainment for their age, the vast majority are likely continuing on in post-graduate work and therefore they are most likely seeking part-time or summer jobs.

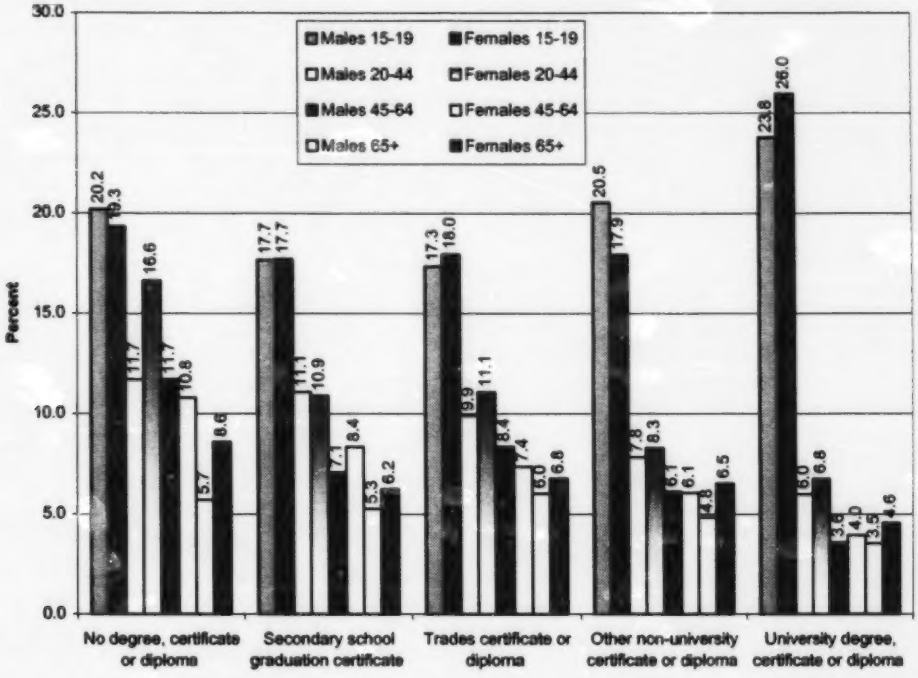
5.6 Involuntary part-time work

More women than men hold part-time jobs. In 1986, 26 percent of the employed women, compared to 7.8 percent of employed men held part-time jobs (Statistics Canada 1986). By 1996, this had increased to 33 percent and 15.1 percent, for employed women and men, respectively.[6] It is often asserted that women prefer part-time work. Nevertheless, less than two-

[6] Customized information from the 1996 Canadian Census on number of males and females employed full-time and part-time in each of the occupations listed in the NOC was kindly made available by Jennifer Jarman.

fifths (38.5%) of women with part-time employment reported that they did not want full-time work, and over one-quarter (27.4%) stated they "could only find part-time work (Statistics Canada 1986)."

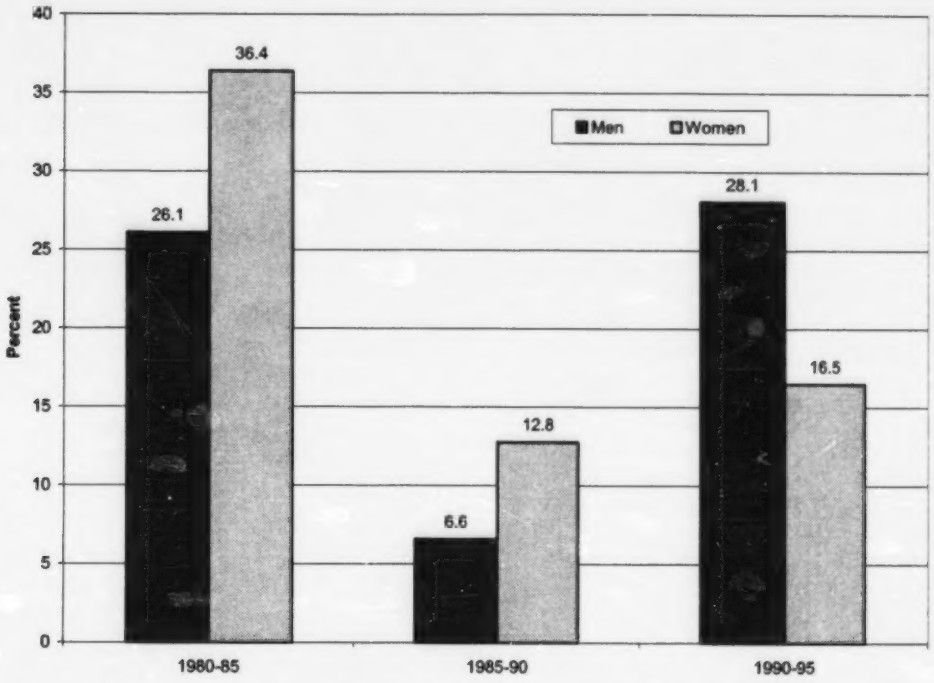
Figure 21 **1996 unemployment rates by gender, age, and educational level**



Source: Statistics Canada; data selected from Catalogue No. 93F0028XDB96006 in the Nation Series.

For both men and women there has been an increase in the proportion of part-time workers. As these numbers rise, the question is whether they are working part-time only because they could not find full-time employment. If so, the recent trends in part-time employment would imply that men are now starting to find it particularly difficult to find full-time employment. Note that the greatest rise in part-time work between 1990 and 1995 was among males (28.1% change for males versus 16.5% for females). This is a switch from the previous two time periods (see Figure 22).

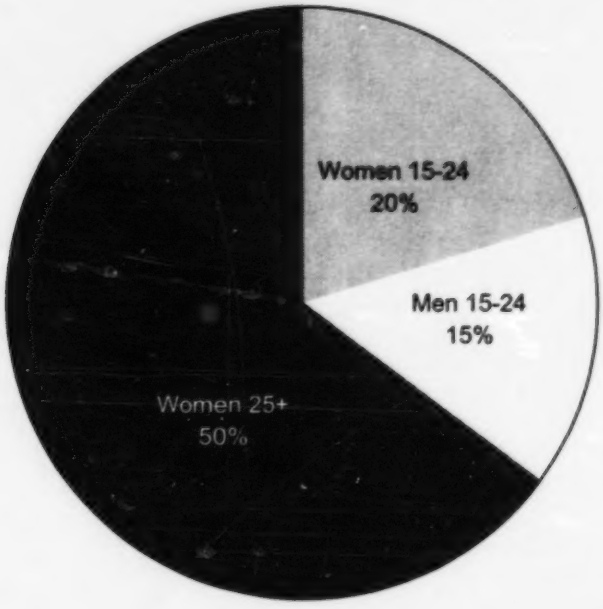
Figure 22 **Change in full-year, part-time workers, by gender (1980-1995)**



Source: Statistics Canada, The Nation Series, calculated from 1981 - 1996 census data.

Nevertheless, women continue to be more likely than men to work on a part-time basis. In 1998 women aged 25 and over accounted for 50 percent of all part-time workers while men in that age group were only 15 percent of all part-time workers (see Figure 23). Many women work part-time voluntarily, as they need time outside of work to fulfil personal or family responsibilities (Best 1995), but there is a growing number who work part-time involuntarily. Of all adult women (aged 25+) working part-time, 29.7 percent would have preferred full-time work. This age group of women has the largest number of involuntary part-time workers. Although the proportion of men in this age group working part-time involuntarily is higher than for women, 43.6 percent versus 29.7 percent, their absolute numbers are significantly lower, 179,000 men versus 393 000 women (Statistics Canada 1999b). This has a strong impact on the earning power of women. Without access to full-time hours their annual income is much lower.

Figure 23 **Distribution of part-time employment, by gender and age (1998)**



Source: Statistics Canada, Labour Force Update, calculated from the 1998 Labour Force Survey.

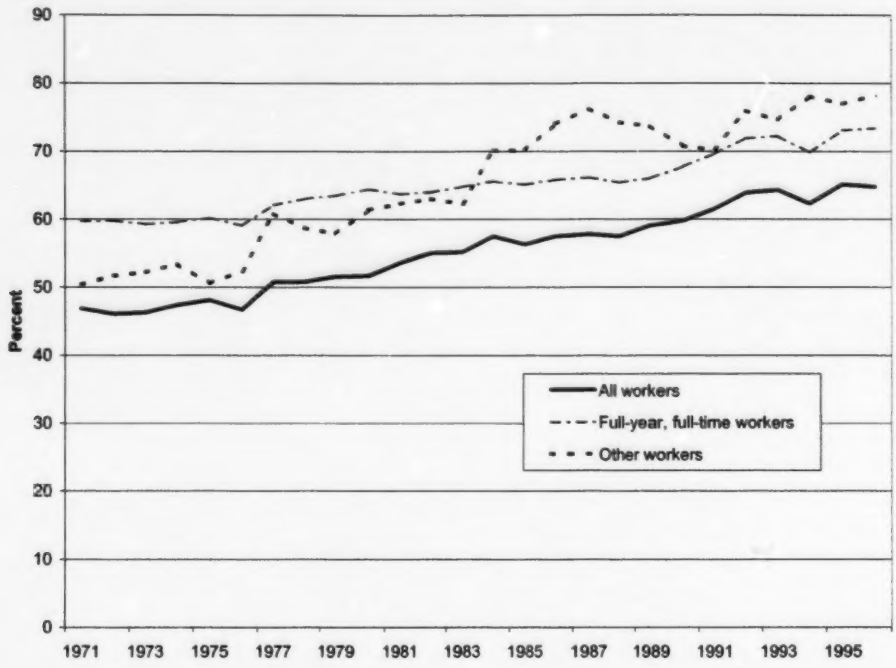
5.7 Income

Over the past quarter century, the gender pay gap has decreased more or less steadily, although it is far from erased. Figure 24 shows the average income of women as a ratio of men's average income. In the early to mid-1970s women working year round full time had an average income of about 60 percent of that of men with these employment characteristics. By 1996 this ratio had increased to 73.4 percent.

The income ratio is especially low when looking at the average income of all workers. This is because a larger number of women are working part-time, thereby pulling down the overall average income of women. This demonstrates the negative impact that part-time work can have on the earning power of women.

How do Canadians judge this trend? The 1994 ISSP survey reveals that over half the men (54%) but substantially fewer women (38%) agree that "(t)here has been a major narrowing of the wage gap between women and men over the past 10 years."

Figure 24 **Female to male earning ratio (1971 to 1996)**



Note: Full-year is defined as 50 to 52 weeks for data prior to 1981 and 49 to 52 weeks for more recent data.

Source: Statistics Canada, 1998, http://www.statcan.ca:80/english/Pgdb/People/Labour/labor01b.htm

Although a large gender earning gap remains, some economists are surprised that narrowing of the gap has occurred at all. For example Peitchinis (1989:46) states that this is "quite remarkable in the context of the significant increase in the supply of women in the labour market" over that time period and argues that the "phenomenal increase in the supply of women in the labour market should, other things being equal, have an arresting effect on the rate of increases in their wages."

Pay equity legislation has been of benefit to some women, but even if women were being paid wages equal to those of men in the same jobs they would continue to have lower earnings overall. The jobs women are concentrated in continue to be of lower pay. Because of this the "wage differentials are unlikely to disappear until either the segregation or the inequitable wages that accompany women's work disappear" (Armstrong and Armstrong 1994:45).

Canadians believe in fairness. This includes a commitment to gender pay equity. It is at the same time well known that a sizable gender gap in income exists in Canada. How is this to be reconciled? For the vast majority of Canadians, the solution is a policy or legal one. For example, the 1994 ISSP revealed that about nine in ten women (91%) endorsed the sentiment that "(t)he notion that women and men should have equal pay for work of equal value should be passed into law." Men were more reticent in this respect, with only three-quarters agreeing or strongly agreeing with this statement. The increase in the female to male earning ratio can be attributed, at least in part, to pay equity legislation.

In his research about the effect of race and gender on earnings Li found that "non-white women seem to have experienced a major jeopardy in earnings for being women and only marginal for being non-white" (1992:501). Li's data was from the 1986 census. As he expected, Li found that white males had the highest earnings of all other groups. Next were non-white males, then white females, and then non-white females. Race had a greater effect on the earnings of males than on the earnings of females. The difference in earnings between white and non-white females was found to be marginal, overall but it was noted that in higher income brackets the disparity between white and non-white women was larger than between those with lower incomes.

This decrease in earning disparity among the lower income brackets has been described as the "floor effect" by Goyder (1981:332). It would seem likely that the overall marginal disparity between white and non-white women's earnings could also be a result of this "floor effect." Since women earn much less than men their earnings are already near the floor of possible earnings so there is little room for non-white women to earn less. There is no doubt that race has an effect on the earnings and employment opportunities of non-white women in Canada.

The employment experiences of native women are much different from those of non-native women. Native women earn less then non-native women, native men, and non-native men. According to a 1987 report on the *Economic Status of Native Women in Ontario* for most employment indicators (unemployment rates, average earnings, employment rates, etc) non-native men fare best with non-native women and native men in the middle while native women fare the worst (J. Phillip Nicholson and Ontario Women's Directorate. 1987). This seems to

indicate that native women endure a cumulative negative effect on their employment opportunities of being women and native.

Much research looking at the employment experiences of immigrant women to Canada concentrates on those with lower education, those with what some call human capital deficiencies (Sorensen 1995). These studies have found that because of their combined characteristics as women and immigrants they are concentrated among low-status, low-paying occupations. For the growing number of immigrant women coming to Canada with high levels of education the situation is different. Sorensen expected to find that these women were less able than Canadian born women were to find occupations in their fields of training. She instead found that, "in comparison to Canadian-born women, immigrant women are not more disadvantaged in terms of acquiring occupations that commensurate with their field of education, nor are they experiencing a unique form of disadvantage compared to immigrant men" (Sorensen 1995:61).

5.8 Income returns to education

For a number of years, the OECD has calculated investment returns to education. The particular measure used is the ratio (times 100) of mean annual earnings of university graduates to mean annual earnings of upper secondary graduates. The number 150, for example, means that university graduates earn half again as much as high school graduates. The larger this number, the greater the returns to education. These ratios are calculated separately for men and women. In 1990, these ratios were 146 and 165 for men and women, respectively (OECD 1993). By 1996 these ratios had increased to 152 and 172 (OECD 1998). As the table below shows, Canada is one of four countries in which the returns to higher education increased for women between these two time points (the other three are the Netherlands, New Zealand, and the United States). Note, however, that the fact that Canadian women's ratio is higher than men's does not mean that Canadian university-educated women have particularly high incomes. A high ratio is also produced whenever the denominator is particularly low. That is, if the incomes of women who have graduated from high school (but not from university) are particularly low compared to similarly educated men, then the income of university graduated women can be less than that of men, even though their ratio is higher than that of men.

Table 7 **Ratio (times 100) of mean annual earnings of university graduates to mean annual earnings of upper secondary graduates, age 25-64, 1990* and 1996**

	Men		*Women*	
Country	1990*	1996	1990*	1996
Australia	158	161	175	139
Canada	146	152	165	172
Denmark	146	138	135	132
Finland	187	187	177	173
Netherlands	140	135	135	143
New Zealand	144	171	146	148
Norway	161	143	159	146
Portugal	175	182	185	175
Sweden	155	158	158	144
Switzerland**	152	146	164	161
United States	164	183	174	175

** Base year is 1989 for the Netherlands, and 1991 for Australia, New Zealand, Norway, and Portugal.*

*** Data for Switzerland are monthly not annual.*

Sources: OECD, 1993, Table R10(A); OECD, 1998a, Table F7.1.

Table 8 shows that in 1995 the average income of males with less than Grade 9 education was greater than the average income of women with post-secondary training. Only women with university degrees had a higher average income then men with less than Grade 9 education. As well, in 1995, women with a university degree earned only 71.2% of what men with the same level of education did.

Gaskell raises a pointed question, "How can women's work seem so different from men's when their schooling seems so similar?" (1992:24). Women are trained alongside men in public and post-secondary schools and yet they earn less, they have less autonomy in their jobs, their jobs have lower levels of prestige, they must be responsible for domestic work, and gender-specific jobs remain. What are the mechanisms that maintain women's positions in the lower levels of

the labour force despite increased educational attainment? Why is it that women have a disadvantage in turning education into income? (Gaskell and McLaren 1991).

Table 8 Average earnings by educational attainment and gender, 1995

	Average male income ($)	Average female income ($)	Female earnings as a % of male earnings
Less than grade 9	29,795	19,254	64.6
Grades 9-13, no high school graduation certificate	33,449	22,598	67.6
High school graduation certificate	36,204	25,786	71.2
Less than university degree	40,733	28,933	71.0
University degree	60,870	43,337	71.2
Total	42,488	30,130	70.9

Source: Statistics Canada, The Nation Series, calculated from 1996 census data.

5.9 Employee benefits

The proportions of those surveyed in the General Social Surveys who were receiving employer benefits are displayed in Table 9. Between 1989 and 1994, the proportion of all employees receiving benefits decreased. In 1989, at least 50% of all men and women received the four benefits listed, having a retirement plan, receiving medical insurance, having a dental plan, and working for a company which provided paid maternity leave. The range of proportions receiving benefits were as high as 66.5% of men receiving medical insurance to a low of 50.4% of men working for a company that provided paid maternity leave. By 1994, a few of the proportions had dropped below 50%. The biggest decrease was to those who were working for a company that provided paid maternity leave. This went from 50.4% of men to 35.7% and from 52.5% of women to 35.2%.

There are differences in the proportions of men and women receiving each type of benefit. In 1989, women were less likely than men to work for a company that provides a retirement plan, medical insurance, or a dental plan but they were slightly more likely to work for a company which provides paid maternity leave. The biggest gap between the genders was for those receiving medical insurance; the proportion of women receiving this was 8% lower than men. In 1994, the gap between the proportions of men and women had decreased for those receiving retirement plans, medical insurance, and dental plans but women were still less likely than men

to have these benefits. For those receiving paid maternity leave there was essentially no difference by gender, in 1994.

Table 9 **Employment benefits, by gender (1989 and 1994)**

	1989		*1994*	
	Men	Women	Men	Women
Company provides retirement plan	55.2	53.0	47.2	45.7
Company provides medical insurance	66.5	59.5	55.2	51.1
Company provides dental plan	56.5	51.8	52.1	49.0
Company provides paid maternity leave	50.4	52.5	35.7	35.2

N: 1989, Males=2932, Females=2645; 1994, Male=3302, Females=2966.

Source: General Social Survey 1989 (Cycle 4: Education and Work) and 1994 (Cycle 9: Education, Work, and Retirement).

5.10 Occupational segregation

Table 10 lists the ten most frequent jobs in 1996 separately for men and women. The only gender overlap in these lists is for the occupation "retail sales person." It seems that little has changed in the types of jobs most common for men and women; an article in *The Globe and Mail* went so far as to say that the 1990s figures look like those of the 1950s (Mitchell 1998).

Not only are women concentrated in different jobs than men, they also continue to be concentrated in fewer types of jobs (Armstrong and Armstrong 1994; Statistics Canada 1998a). Many of the jobs in this top ten list involve similar types of work (retail sales persons, cashiers, and food servers; secretaries, general office clerks and receptionists). These top ten jobs account for 32% of all occupations held by women while the analogous top ten account for only 20% of all men's occupations.

It is more likely that women will be in lower skilled jobs. For example, retail sales persons are among the ten most common jobs for both males and females while retail trade managers only enter the top ten for males. In occupational categories where women predominate they continue to hold the lower end jobs within those categories. Women comprise 78.8% of jobs in the health field (see Figure 25) yet they only account for 30% of doctors, one of the higher level jobs within this category. The large proportion of women in the field of business, finance and administration is a result of their high numbers in the jobs of secretary (98%) and general office clerk (84%), these being among the lower level jobs within this occupational category. In the field of

education women are again concentrated in lower level positions. At the elementary school level there are 4.35 female teachers to every male teacher. At the secondary school level the proportion of female teachers has dropped substantially to 1.03 female teachers to every male and in university it drops even further to only 0.5 female instructor to every male instructor (Statistics Canada 1998a). These are examples of how women are concentrated in the lower level occupations within female-dominated fields.

Table 10 Ten most frequent jobs, by gender (1996)

Men	*Women*
Truck drivers (222,795)	Retail sales persons (339,025)
Retail sales persons (215,345)	Secretaries (311,835)
Janitors (185,035)	Cashiers (235,585)
Retail trade managers (179,645)	Registered nurses (220,625)
Farmers (176,985)	Accounting clerks (219,895)
Sales representatives, wholesale (131,225)	Elementary teachers (187,070)
Motor vehicle mechanics (127,185)	Food servers (176,310)
Material handlers (119,135)	General office clerks (173,175)
Carpenters (112,965)	Baby sitters (134,560)
Construction trade helpers (104,110)	Receptionists (118,985)

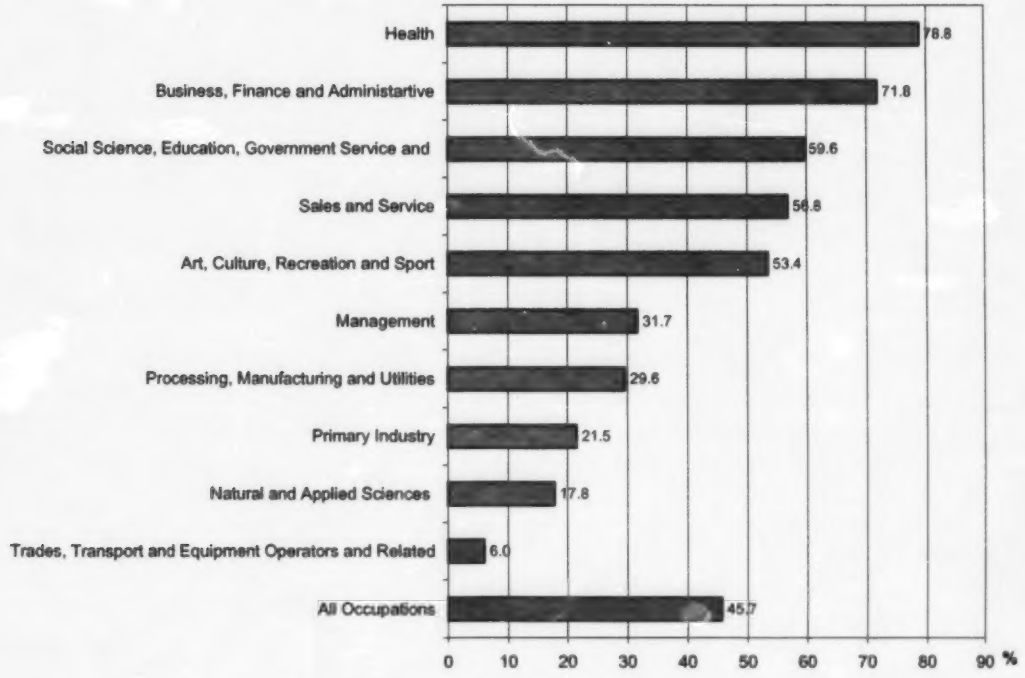
Source: Statistics Canada, The Daily, March 17, 1998, calculated from 1996 census data.

Within female dominated occupations similar trends continue: men working in these jobs are more likely to hold the senior and better-paid positions. In 1991 men comprised 8.2% of sewing machine operators but 60% of pattern-makers, markers, and cutters. Only 5.2% of supervised nurses were male but 9.4% of supervising nurses were male (Armstrong and Armstrong 1994).

Table 11 reveals much about the differences experienced by men and women in the labour market. Using the average income (reported in the 1996 Census) for both males and females all occupations have been ranked from highest to lowest paid. For all of the occupations shown there are none in which the average income of women is on par with men's. Among the highest paid occupations the average income of women judges is almost equal to men's (91.4% of men's income) but this is the exception. On average, women working at the highest paid occupations earn two-thirds (66.4%) of what men in those same occupations earn. Among the lowest paid

occupations the wage disparity is less but even so women in these occupations work for four-fifths (80.4%) the wages of men.

Figure 25 **Proportion of females by occupational category (1996)**



Source: Statistics Canada, The Daily, March 17, 1998, calculated from 1996 census data.

The ten highest paid occupations account for 3.5% of all male workers and only 1.3% of all female workers. The ten lowest paid occupations account for only 1.1% of all male workers but 6.0% of all female workers. There are 3.2 times as many men among the *highest* paid occupations then there are men among the lowest paid occupations. The opposite proportions are true for women; there are 4.6 times as many women among the *lowest* paid occupations than there are women among the highest paid occupations.

The differences in the proportion of women in the highest and lowest paid occupations is consistent with the interpretation of the Canadian labour market as one that is segregated by gender. Women comprise 39.9% of all the occupations in Canada. If segregated work for women were not the case then the proportion of women in the highest and lowest paid occupations should approximate their overall proportion. Instead women are a much lower

proportion of all those in the ten highest paid occupations (19.7%) and a much higher proportion of all those in the ten lowest paid occupations (78.4%).

Table 11 shows that the highest paid occupation is judge. Women judges are only 23.0% of all judges. The lowest paid occupation is babysitter/nanny/parent's helper. Of all the people who work in this occupation 97.9% are women. There are similar proportions of men working in the highest paid and the lowest paid occupations (for both it is less than 0.1%). Women who are working as babysitters (the lowest paid occupation) are 1.15% of all female workers. This is nowhere near the same proportion for women working at the highest paid occupation (less than 0.1% of all female workers).

According to General Social Survey data, working women are slightly more likely than working men to say that their job is closely related to their education (as opposed to somewhat related or not related at all). They are also more likely than men to say that they are over qualified for their jobs considering their experience, education and training. In 1989, 5.2% more women than men believed that their jobs were closely related to their education. In 1994 this gap had closed to 3.8% more women than men. As for thinking they were over qualified for their jobs, 4.2% more women indicated this in 1989 and 3.0% more in 1994.

More men than women strongly agree that their job requires a high level of skill. In 1989, 51.6% of men strongly agreed to this while only 42.5% of women strongly agreed it was true. Overall the proportions that strongly agreed increased slightly for both men and women in 1994 but the proportions remained relatively the same. As well fewer men than women strongly agreed that their jobs had a lot of freedom to decide how do their work. In 1989 these proportions were 58.1% for males and 54.0% for females. In 1994 49.7% of men strongly agreed and 41.9% of women did.

Table 11 1995 Income differentials of the highest and lowest paid occupations, by gender

	Female earnings as a % of male earnings	Female % of all workers	% of all male workers	% of all female workers
Ten highest paid occupations	**66.4**	**19.7**	**3.5**	**1.3**
Judges	91.4	23.0	0.0	0.0
Specialist physicians	62.8	25.6	0.2	0.1
General practitioners and family physicians	69.8	25.9	0.4	0.2
Dentists	65.6	18.0	0.2	0.0
Senior managers - Goods production, utilities, transportation and construction	56.8	8.1	0.7	0.1
Senior managers - Financial, communications carriers and other business services	68.1	16.7	0.4	0.1
Lawyers and Quebec notaries	68.2	27.2	0.7	0.4
Senior managers - Trade, broadcasting	57.8	14.2	0.6	0.1
Primary production managers (not agriculture)	61.8	5.7	0.2	0.0
Securities agents, investment dealers, traders	52.4	33.6	0.2	0.2
Ten lowest paid occupations	**80.4**	**78.4**	**1.1**	**6.0**
Sewing machine operators	83.9	91.8	0.1	0.9
Cashiers	82.6	83.9	0.2	1.6
Ironing, pressing and finishing occupations	85.5	70.6	0.0	0.1
Artisans and craftspeople	66.0	51.7	0.1	0.1
Bartenders	79.0	54.5	0.2	0.3
Harvesting labourers	77.4	53.5	0.0	0.0
Service station attendants	90.5	20.1	0.2	0.1
Food service counter attendants, food preparers	82.0	75.0	0.1	0.6
Food and beverage servers	76.2	76.2	0.3	1.3
Babysitters, nannies and parents' helpers	83.8	97.9	0.0	1.2
All other occupations	**64.5**	**39.2**	**95.4**	**92.6**
Total	**70.9**	**39.9**	**100.0**	**100.0**

Notes: This table is based on those working full-time, full-year.

Trappers and hunters were excluded from the lowest paid occupations because of their small numbers and included with all other occupations.

Source: Armstrong and Armstrong, 1994: 46, updated using Statistics Canada, The Nation Series, 1996 census data.

Table 12 Job characteristics, by gender (1989 and 1994)

	1989		1994	
	Men	Women	Men	Women
Current job is managerial[a]	31.5	20.9	37.2	23.0
Top level of management[b]	39.4	19.9	45.0	32.4
Lower level of management[b]	13.9	25.1	16.1	24.1
Job is closely related to education	33.8	39.0	37.9	41.7
Overqualified for job	20.2	24.4	18.8	21.8
Strongly agree that job requires a high level of skill	51.6	42.5	55.8	47.5
Strongly agree that job has a lot of freedom to decide how to do your work	58.1	54.0	49.7	41.9

[a] *In 1989 this includes those who described their job as managerial or supervisory.*

[b] *In 1989 the level of management was only asked of those who described their job as managerial (not supervisory).*

1989: Males=2969, Females=2665; 1994: Male=3314, Females=2953.

Source: General Social Survey 1989 (Cycle 4: Education and Work) and 1994 (Cycle 9: Education, Work, and Retirement).

5.11 Advancement: The glass ceiling

Peitchinis (1989:64) reports that in 1985 "the chief executive officers of the top 500 companies in Canada were all men. And the boards of directors of all major corporations were made up almost entirely of men."

A recent study, conducted by Catalyst, a U.S. non-profit research group, of the corporate boards of 560 Canadian public and private companies reveals that increasing the proportion of women in the boardroom has been slow. Under the banner "The male way still rules on corporate boards," *The Globe and Mail* (Gibb-Clark and Church 1999) reports that only 6.2 percent of board members of the top 500 companies are women and that nearly 60 percent of these companies have no women board members at all. Larger companies (by revenue) seem to be leading the way, as well as banks, insurance companies and Crown corporations, since they are more likely to have female directors.

Table 13 illustrates the similarities and differences in the perceptions of senior women and chief executives as to what the barriers are for women's advancement. Women were more likely to cite "male stereotyping and preconceptions of women's roles and abilities" (44% versus 30%) and "exclusion from information networks of communication" (31% versus 12%) as barriers for women than chief executives were. While these women pointed to issues of stereotyping and exclusion as the barriers to their advancement, the chief executives were more likely to see lack

of experience as the main barrier for women, including "lack of significant general management or line experience" and "lack of time in the pipeline" (The Conference Board of Canada and Catalyst 1997).

Table 13 Top 3 barriers to women's advancement into senior positions

Mentioned among top 3 barriers	Senior women %	Chief executives %
Male stereotyping and preconceptions of women's roles and abilities	44	30
Commitment to family responsibilities	35	37
Exclusion from informal networks of communication	31	12
Lack of significant general management or line experience	30	44
Lack of mentoring	25	33
Failure of senior leadership to assume responsibility for women's advancement	23	31
Lack of time in the pipeline	11	32

Source: The Conference Board of Canada and Catalyst, 1997: 8.

The process of being invited to become a partner in a law firm is also instructive, since this is a major form of advancement in the legal profession. A study of 1,597 lawyers called to the bar in Ontario between 1975 and 1990 found that men were almost twice as likely as women to be partners (46% versus 25%, respectively). This held true even after controlling for various factors such as size of firm, specialty area, elite law school education (Kay and Hagan 1998: 737).

These same researchers found major gender differences in the process by which men and women became partners. For example, bringing in more clients to the firm significantly improved a woman's, but not a man's, chance of partnership. A more intriguing finding is that

> exceptional women lawyers have partnership prospects that are as good or better than exceptional men lawyers...Neither average nor below average women lawyers, however, fare as well as average or below average men. Only women who endorse firm culture with exceptional intensity approach men in partnership success, whereas men do about the same regardless of their disposition toward firm culture. Thus, women, but not men, are required to demonstrate commitment to firm culture over and above showing the motivation and ability to perform well at "bottom-line" issues, such as recruiting new clients to the firm (Kay and Hagan 1998: 739).

Kay and Hagan (1998: 741) raise the question "Are contemporary firms adapting to women, or are women adapting to the expectations of firms?" and conclude that their "data suggest the latter rather than the former."

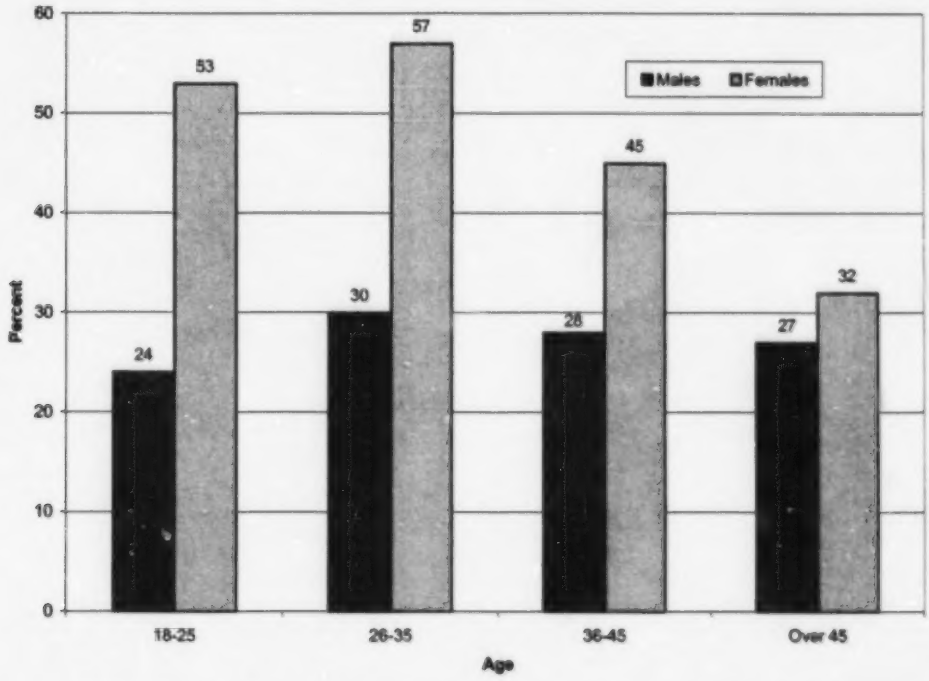
5.12 Sexual harassment

One of the issues that crops up in various forms is that of the different work environments for men and women. Universities, for example, have been accused of creating a "chilly climate" for women. Many believe that the incidences of sexual harassment are much more widespread than reported. An argument can be made that in anonymous surveys, the usual reasons for not reporting such incidences are less salient. The 1994 ISSP asked:

> Sometimes at work people find themselves the object of sexual advances, propositions, or unwanted sexual discussions from co-workers or supervisors. The advances sometimes involve physical contact and sometimes just involve sexual conversations. Has his ever happened to you?

This question provides a fairly broad scope of behaviours that might be included in the issue of sexual harassment. Just over one-quarter of the men (27%) and almost half the women (46%) reported having experienced such forms of harassment. It is difficult to determine whether there is any trend in such behaviours in Canada. An indirect approach to such a question is to assess whether younger respondents were less likely than older respondents to report incidents of sexual harassment. If a lower percentage of younger respondents claim to have experienced sexual harassment, then there might be some basis—albeit a weak basis—to conclude there is a declining trend. The reason the basis would be a weak one is that younger workers have had less exposure to workplaces and just by dint of this would be less likely to have experienced sexual harassment. On the other hand, the issue of what constitutes inappropriate gender behaviour in the workplace has received substantial attention in the 1980s and 1990s. It could therefore be that younger persons are more likely to perceive a broader range of behaviours as inappropriate and therefore be more likely to state they have experienced such incidents.

Figure 26 **Reported harassment at work, by age and gender (1994)**



Source: 1994 ISSP (Canadian sample only). N = 1,440; information from 46 respondents was not ascertained.

Figure 26 shows that for men, age is essentially unrelated to reported experience of sexual harassment; about one in four of the youngest as well as the oldest age group reported undesired sexual advances (24% and 27%, respectively). The women paint quite a different picture. Over half of the younger ages groups report undesired sexual advances, touching, or conversation; this drops to about one in three (32%) among those over 45 years of age. The high number of young women reporting harassment at work indicates that sexual harassment remains a greater impediment in the work environment of women than of men.

Appendix A

Methodology

The search for literature about gender, education, and labour force trends in Canada began with the Statistics Canada web site (www.statcan.ca). At this site there were many valuable resources. Included in the section called Canadian Statistics (www.statcan.ca/english/Pdgb), there were a number of tables containing information that was used to calculate some charts in the report (for example, the chart of income ratios was calculated using these data tables). The section entitled "Daily News" (www.statcan.ca/Daily/English/today/daily.htm) included a listing of release dates for various publications, a daily newsletter containing summary information from current reports, and an archive of these newsletters. The release date information made the researchers aware of what was and would become available concerning gender, work, and education. *The Daily's* archive was used to obtain some information contained in published reports about the 1996 Census that were not yet available in the Dalhousie University libraries.

Using the Statistics Canada 1997 catalogue available at the library, along with the on-line catalogue provided by Statistics Canada, their periodical publications were searched for articles on relevant topics. The publications found to be most useful were *The Education Quarterly Review, Perspectives on Labour and Income, Labour Force Update, Social Trends,* and *Education.*

A CD-ROM called, *The Nation Series* is a part of the 1996 Census publications. This contains 1996 Census data in a variety of tables. These tables were manipulated to produce many of the tables found in the report. The information contained in some of these tables was used to update tables from other publications. To examine trends over time it was often necessary to retrieve data from earlier sources as many of the tables found in *The Nation Series* only included the 1996 data. Tables were also created by using the data found in some of Statistics Canada's annual publications, such as, *Labour Force Annual Averages* and *Education in Canada.*

Searching the publications available on the Internet from Human Resources Development Canada's (HRDC) Applied Research Branch produced a few relevant articles. These were found at www.hrdc-drhc.gc.ca/arb/publications/research/alph.shtml.

The search databases available from the Dalhousie libraries were the means by which a variety of academic journals and popular publications were searcher for relevant articles. The search databases used were Canadian Business and Current Affairs (CBCA) Reference (includes Canadian popular publications such as *The Globe and Mail*), ERIC database (includes references to educational journals and reports), and Sociological Abstracts. The Novanet Catalogue a computerised search system for all university libraries in Nova Scotia (excluding Acadia University) was also used.

Data files for the 1989 (Cycle 4) and 1994 (Cycle 9) General Social Surveys were accessed and analysed. These data sets dealt with numerous educational and work-related issues (a listing of all the data sets used is found in Table 14). Other data was found using CANSIM. This is a product of Statistics Canada that allows researchers to gain access to information about Canadians on a variety of topics.

Table 14 **Data set descriptions**

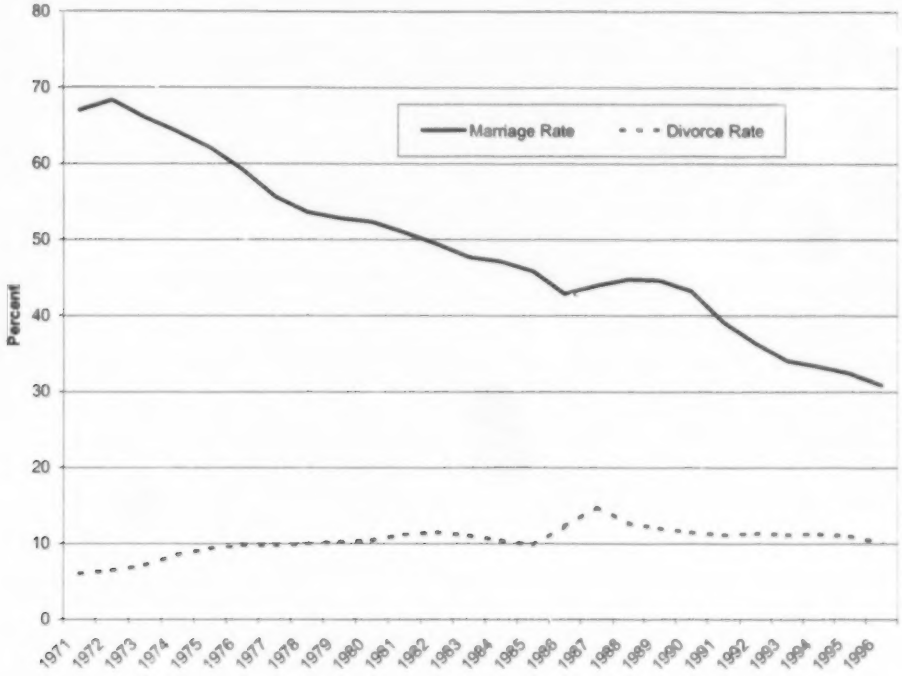
Data set	Description	N
NSSWT (Nova Scotia School-to-Work Transition Research Project)	Survey of students during their Grade 11 and 12 school years, half of whom were participating in a high school work experience program. Data came from student questionnaires, parent questionnaires, employer questionnaires, and school transcripts.	574
IALS (International Adult Literacy Survey)	Project of the OECD, carried out in 12 countries comparing the literacy ability of their populations (OECD and HRDC 1997).	5747 (Canadian sample)
SLS (School Leavers Survey)	Telephone surveys of 18-20 year olds in Canada during 1991, with the purpose of comparing high school graduates, continuers, and leavers. Sampling frame was generated from 5 years of family allowance files (Gilbert, Barr et al. 1993).	9460
SLFS (School Leavers Follow-up Survey)	Re-interviews of those surveyed in the SLS. Conducted in 1995 (respondent aged 22-24) with the purpose of exploring school-work transitions (Frank 1996).	6284
GSS (General Social Surveys)	Each year a telephone survey is carried out examining one of five social topics that are cycled every five years. The GSS for 1989 (cycle 4) and 1994 (cycle 9) dealt with education and work (Statistics Canada 1990; Statistics Canada 1995).	9338 (1989) 11876 (1994)
ISSP (International Social Survey Programme)	A co-operation among 31 countries to have cross-national data on a variety of subjects. Like the GSS a variety of topics are cycled over time. The 1994 ISSP was concerned with Family and Changing Gender Roles.	1440 (Canadian sample)

Table 14 (continued)

Census	Statistics Canada surveys the entire Canadian population every 5 years about marital status, age, and gender. 20% of the population completes a more in-depth questionnaire concerning labour market activities, education, ethnicity, etc.	
LFS (Labour Force Survey)	Households are selected from the 10 provinces and remain in the survey for 6 months. Data is collected monthly on a variety of labour market activities (Statistics Canada 1999a).	53000
Gallup Polls	Conducted as face-to-face interviews in the respondent's home. They are national polls conducted by the Canadian Institute of Public Opinion 6 times a year prior to 1974, then monthly until 1979, and then 15 times a year (Boyd 1984).	Varies: 300 - 2000
QSL (Quality of School Life Survey)	Completed in November 1995 by all Grade 8 students in the Atlantic provinces. Ascertained students' satisfaction with school (Atlantic Provinces Education Foundation 1996).	Not stated

Appendix B

Figure 27 **Marriage and divorce rates of women (1971-1996)**



Note: Divorce Rate is the number of divorces per 1000 married women aged 15 and over. Marriage Rate is the number of marriages per 1000 single, divorced, and widowed women aged 15 and over.

Source: Calculated using CANSIM matrixes 6, 7, and 6213; http://www.statcan.ca/english/CANSIM/.

Table 15 Opinions about women and work, by gender (1994)

Percent of respondents who agree that:	Men %	Women %
Working women should receive paid maternity leave when they have a baby	77	86
A working mother can establish just as warm and secure a relationship with her children as a mother who does not work.	65	78
A pre-school child is likely to suffer if his or her mother works.	38	27
All in all, family life suffers when the woman has a full-time job.	28	24
A job is alright, but what most women really want is a home and children.	20	16
Being a housewife is just as fulfilling as working for pay.	39	46
Having a job is the best way for a woman to be an independent person.	42	49
Most women have to work these days to support their families.	74	84
Both the man and woman should contribute to the household income.	58	59
A man's job is to earn money; a woman's job is to look after the home and family.	13	9
It is not good if the man stays at home and cares for the children and the woman goes out to work.	16	10
Family life often suffers because men concentrate too much on their work.	59	59

Note: The original response categories were: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, and Strongly Disagree. The percentages shown in the table combine the first two response categories.

Source: 1994 ISSP (Canadian sample only). N = 1,440; information from between 16 and 92 respondents was not ascertained.

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